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DAILY DIGEST

Prepared in the Press Service, Office of Information, U. S. Department of Agriculture to present items of interest to agriculture and to agricultural workers. Views and opinions in these items are not necessarily approved by the Department.

Vol. LXXI, No. 21

Section 1

October 31, 1938

PRICES AND DEMAND

Prospective upward trends in industrial activity and consumer incomes were the principle bases for a forecast of a better demand for farm products in 1939 made by the Bureau of Agricultural Economics. A "less favorable" foreign situation for products of American farms was predicted, but this will be offset by improved domestic conditions, it was said. Anticipating a "slight rise in prices of farm products as a whole" and a reduction in the disparity between prices received and prices paid by farmers, the bureau predicted an "appreciable increase in farm income which, in August, was estimated as \$7,500,000,000 for 1938, compared with \$8,600,000,000 in 1937." (New York Times.)

BOOK ON HURRICANE

"New England Hurricane," a comprehensive record of last month's disastrous storm, assembled by members of the WPA Federal Writers Project who were on the spot, will be published Friday, says a report in the Washington Post. Described as the most complete document of storm damage ever undertaken in this country, the 40,000-word text, 150 pictures and many maps and charts were gathered in a Boston office through cooperation of government agencies, newspaper syndicates, radio stations and the public utilities companies of New England.

U. S. WHEAT MARKETS

The United States wheat markets appear to have been stabilized at around 65 1/2 cents a bushel for the December delivery on the Chicago exchange, says a report to the New York Times. Stabilization, according to brokers, has been accomplished as the result of the government loan and the export subsidy program. In the last three months, wheat prices in Liverpool and Winnipeg have declined about 17 cents a bushel and in Buenos Aires more than 20 cents. The December future on the exchange (Chicago) has receded about 3 1/2 cents in the same period. As a result, the United States wheat markets are now the highest in the world, although the price is the lowest since 1934.

RAIL-TRUCK COMPETITION

Stressing the disastrous effect of truck competition on the nation's railroads and the alleged unfairness of the present rate structure, the railroad securities committee of the Investment Bankers Association urges the creation of a central truck subsidiary for all carriers and legislation permitting the carriers to adopt the so-called agreed-charge rule of rate-making to enable them to compete more equitably with other forms of transportation. (New York Times.)

Cooperative R. G. Hill, Michigan Extension Service, describes the
Hunting Plan Williamston Township plan of controlled hunting on farm
 lands, in Michigan Farmer (October 22). He says in part:
"The farm cooperative hunting clubs are based upon three main items. The entire area owned or controlled by the farm community, whether it is one or more sections in size, is posted as a unit. Hunting is by permission only, with a ticket, and the number of tickets issued per farm is limited... The number of tickets allotted per farm is decided by the group organizing the cooperative... A hunter wishing to enter the land must stop at the farm house and ask for a ticket. If the landowner has not given out all his tickets and believes that the caller will conduct himself properly on the land, a ticket is given to him... After permission is given, the hunter must park his car in the farmer's yard and start his hunting from this point. This necessitates that he return to get his car and return the ticket. This gives the landowner a chance to examine the bag, take the car license number and any other information he desires... The State Department of Conservation... furnishes the boundary signs needed for reasonable posting and tickets for the guest hunter... The department further agrees to cooperate in game law enforcement and to aid in formulating a wildlife management plan for the area... Communities desiring to organize such a game management area should contact their county agricultural agent, who will arrange a community meeting."

Appalachian An agreement by the Forest Service and the National
Trailway Park Service, to develop the Appalachian Trailway for hiking and camping, is announced. A protective strip will be established along 546 miles of the Appalachian Trail in eight National Forests and 158 miles in two National Parks. Location and marking of the entire route--which extends for 2,050 miles along the crest of the Appalachian Range from Mount Katahdin in Maine to Mount Ogelthorpe in Georgia--was completed in 1937 after many years of effort by the 80 outdoor organizations affiliated with the Appalachian Trail Conference. Myron H. Avery, chairman of the Appalachian Trail Conference, said: "This is the first coordinated federal policy in support of the trail project. Apart from insuring protection of the trail in federally owned lands, it points the way to preservation of the entire trail route." A zone at least two miles wide will be maintained along the trail through National Forests and Parks, except where it descends into main valleys. Here there will be no paralleling routes for motor transportation or other incompatible developments. Wherever desirable, portions of the through trail which are now within a mile of paralleling motor roads will be relocated as funds permit.

Quick Frozen Quick frozen strawberries are now being preserved by
Strawberries chilling them in cold sugar syrup, it was reported to the recent Food Preservation Conference at the University of Tennessee by R. Brooks Raylor of the university. The individual fruit is frozen at a temperature a little above zero degree F. instead of at severe temperatures used in some other methods. The freezing agent is sugar solution kept cold by cooling coils in the freezing container. (Science Service.

Electric Fence Code Pennsylvania Farmer (October 22) says editorially that Wisconsin is the first state to enact legislation to insure the safety of electric fences and to govern their use. "The law, which went into effect October 6, authorizes the State Industrial Commission to set up rules and regulations governing the construction, testing and use of equipment. The intent of such regulations is declared to be 'that the energy which the electric fence can deliver under the most severe condition shall not be hazardous.' A long list of rules is provided to insure the safety of the fence. They provide for maximum units of energy; that all controllers or converters must be approved; that all electric fences used as line fences or installed along public highways shall be marked; and for the proper construction of the controlling devices. Prof. F. W. Duffee of the Wisconsin College of Agriculture is chairman of the advisory committee on electric fence specifications and of the technical subcommittee of the National Electric Safety Code."

September Foreign Trade The Commerce Department says American foreign trade expanded in September over August. September exports totaled \$246,361,000, compared with \$230,625,000 in August. Imports were \$167,651,000, compared with August imports of \$165,541,000. In September 1937, exports totaled \$296,579,000 and imports \$233,142,000. The department said exports last month were the largest since May and imports the largest since March. (Associated Press.)

Ecology and Afforestation Nature (London, October 15) among its reviews of papers delivered at the British Association meeting, discusses a paper on the ecological aspects of afforestation. It says in part: "Marginal land is commonly heavy clay or light sand and its abandonment is usually attributed to falling prices of major farm produce. Doubtless this is a main cause; but it may well be questioned whether modern farming methods, by destroying the physical and biological regime of the woodland soil, have not been a potent contributory cause. Besides the farm land carved from the original forest, there are the wide open spaces of heather, peat or poor grassland to which the forest failed to return because of regeneration difficulties due in the main to grazing, burning or the lack of parent trees. Under these conditions, too, the forest soil has been altered; in fact, the set of conditions associated with a complex biological unit and built up slowly by Nature has been destroyed, or degraded from its woodland status. The problem affords an excellent illustration how the larger light emanating from the study of plant communities in general can be usefully focused upon the practical problems of the forester. For to the ecologist the forest is not merely a collection of trees with a certain density and rate of growth; it is also a community of organisms living together in a more or less intimate and intricate relationship. This forest biological unit is achieved only after much preparation in Nature during the sequence of changes separating the early stages of the plant succession from the later..."

Self-Sufficient Farm Families

"Georgians of the Atlanta trade area are adding their efforts to a movement that is spreading over the Southern States for the creation of greater self-sufficiency of farm families," says an editorial in Florida Times Union (October 25). "Elimination of defects in the 'cotton and corn' system of southern farming is the point of attack of the program which has brought results of marked encouragement where it has been put into effect. The program calls for aiding the farmer: (1) To raise and improve the quality of livestock; (2) to diversify crops; (3) to halt soil erosion and build up the land; (4) to 'live at home' in respect to foodstuffs and stock feeds; (5) generally to develop new sources of farm income. Important Atlanta business and financial interests have organized for the purpose of furthering the enterprise in the 26 counties that form the immediate Atlanta trade territory. In each of these counties farm prosperity-building associations will be formed. The procedure is to form county livestock associations, each of which will be tied into a central organization in Atlanta to which each county names one director. Soundness of the program becomes obvious with a glance at its provisions. Especially strong are the suggestions for diversification of crops with the idea of 'living at home'. Perhaps the greatest weakness of the farming program of the South in the years past has been failure of the farmers to plant a sufficient number of crops, or to pay enough attention to the raising of livestock and poultry to supply home needs in foodstuffs..."

Progressive Farmers

"Those who have sometimes expressed the idea that farmers are not progressive should be interested in a survey recently announced at Furdue University, conducted on a large number of farms in five different states," says an editorial in Prairie Farmer (October 22). "The survey showed that in all age groups from 30 to 60, a very large percentage of farmers had adopted new progressive farm methods. One of the most interesting deductions, however, was that apparently the most progressive age was in farmers from 41 to 45 years. Even in the group from 56 to 60 years of age, 87 percent were adopting new methods in accordance with the most progressive practice of their neighborhoods. The women do not wait quite so long to reach the maximum of progress. The age of greatest progress among farm housewives was found to be between 31 and 40, but in all age groups, good progress was shown."

Florida Citrus Law

An Associated Press report in Florida Times Union (October 25) says Circuit Judge H. C. Petteway denied recently the petition of John B. Snively for an injunction restraining Commissioner of Agriculture Nathan Mayo from enforcing the state citrus arsenic law. The injunction would have prevented Mayo from applying the law to oranges in a 10-acre grove owned by Snively. E. Snow Martin, attorney for Snively, contended the arsenic law was unconstitutional. The law gives Mayo authority to seize and destroy the fruit.

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Vol. LXXI, No. 22

Section 1

November 1, 1938

FOREIGN TRADE CONVENTION

Warnings that Americans in foreign trade must find ways of combating trade methods of totalitarian governments or face exclusion from major markets of the world predominated in the remarks of speakers yesterday at the opening session of the National Foreign Trade Convention. Cautioned that recent events in Europe may radically affect the future of this country's national economy, the delegates were advised to give particular attention to trade possibilities in Latin America, where future competition from Germany and other totalitarian nations was held to be inevitable. Bankers, educators, exporters, importers and government officials offered varied suggestions, among which were the use of this country's idle gold reserves to help stabilize Latin American currencies, the development of "positive Pan Americanism" and creation of new channels to finance the export of capital goods to the Latin American republics. (New York Times.)

SHORT TERM FARM CREDIT

Ample short term credit for farmers and potentially lower production costs were predicted by the Bureau of Agricultural Economics as a result of surveys undertaken in an effort to discover the trend for 1939. The bureau said that farmers might be expected to use more short term credits in 1939 than this year, but added that "ample short term credit will be available for meeting all demands by farmers of good credit standing." In its study of probable production costs, the bureau predicted that farm wages, which have declined since October 1937, would probably continue at about present levels, at which there should be ample farm labor available. Prices for farm equipment and supplies were counted on to continue about the same as this year, but it was indicated that farm machinery, automobiles, fertilizer, feed and seed would be available at slightly lower prices. (Press.)

TIMBER SALVAGE

Plans for salvaging an estimated 4,000,000,000 board feet of timber blown down during the recent New England hurricane were announced yesterday by Chairman Jesse H. Jones of the Reconstruction Finance Corporation. "The Disaster Loan Corporation will make loans to the Federal Surplus Commodities Corporation, which will make advances to the owners of the timber when placed in designated ponds or lakes or other delivery points," Mr. Jones explained. "It is expected that the advances will not exceed 80 percent of the average market price of such logs during the past three years. Where necessary, advances will also be made for processing the logs and stacking the lumber..." (Press.)

Corn Husking The Farmer (St. Paul, October 22) reports: "This
on the Radio year the national corn husking contest (November 3, 11:30 AM)
 has developed interest of international proportions. For
the first time in the history of the contest the broadcast will be sent
by short wave to Latin America by the National Broadcasting Company. The
Farm and Home Hour broadcast of the event will be aired, with explanatory
remarks in Spanish and Portuguese, to give Latin America an interesting
picture of a typical phase of American rural life..."

Gov. Lending Banking (November) contains a summary of government
Agencies lending agencies by George E. Anderson. He says: "Two
 features characterize the development of the more than
two score credit agencies of the Government of the United States during
the past two years. One is the consolidation and rounding out of the
permanent agencies into a complete system. The other is a tendency on
the part of some of the more important emergency agencies to become perma-
nent. The outstanding example of the first feature is the Farm Credit
system; that of the second, the Farm Security Administration. Several
of the important agencies have taken on new powers and have undertaken
new responsibilities of a most vital sort. The new Maritime Commission
is an example of this development. There has been a considerable shift-
ing of functions, a merger of many emergency into permanent combinations,
and a tendency to perpetuate emergency functions by shifting them to
permanent agencies. There are a number of new agencies... Various obsolete
agencies of the Government have involved credit operations. Loans by most
of these concerns have been liquidated or written off... The use of
Government funds for private credit has come to stay. The only question
about it is where the line will be drawn, both with respect to the ex-
tent of its use and in the matter of further development. Some of the
minor agencies in time may be discontinued but it is difficult to avoid
the conclusion that so long as credit is needed by particular classes of
the population or for special purposes the Government agencies will con-
tinue to function if, indeed, they do not continue to increase in the
scope of their activities and in the amount of credit they put out..."

Grain Market Formation at Chicago of the Grain Exchange Institute,
Institute which on November 3 will inaugurate a comprehensive course
 of study on grain and its marketing, is announced by A. W.
Mansfield, president of the Association of Grain Commission Merchants of
the Chicago Board of Trade, whose organization will sponsor the project,
says a report in the Northwestern Miller (October 26). The Grain Ex-
change Institute, first venture of its kind in the commodity exchange
field, is open to Board of Trade members, to employees of member firms,
to students, and to the public.

Civil Service The Civil Service Commission announces an examination
Examination will be held for Principal Industrial Toxicologist (Organic
 Compounds), \$5600, (unassembled), U. S. Public Health
Service. Applications must be on file not later than: (a) November 28,
if received from states other than those named in (b); (b) December 1,
if received from the following states: Arizona, California, Colorado,
Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

Community Community refrigeration is helping the southern
Refrigeration farmer, it was reported recently to the Food Preservation
 Conference, by C. J. Hurd of the department of agricultural
industries of Tennessee Valley Authority. The University and TVA have
planned community cooler units which can preserve several hundred pounds
of produce for each of from 10 to 20 families. In a typical case, for a
cash investment of about \$60 a family and a maintenance cost of about
50 to 75 cents a month, members of a group containing 10 to 12 families
obtain refrigeration that has been found to produce a gross saving of
nearly \$500 a year. The net saving averages about \$300 a year for such
a community project. This represents, stated Mr. Hurd, a saving of 37
percent on the investment in one year. Not measured by dollars and cents
is the value in terms of a better diet containing more home grown beef
and pork the year round, as well as more fresh fruits and vegetables.
(Science Service.)

Soybean Oil "Soybean processors have noted a slow but fairly
Content steady increase in the oil and the protein content of
 domestic soybeans for the last several years," says the
Grain & Feed Journals (October 26). "...The current crop, according to
prominent processors, although of excellent quality from the grading
standpoint, shows a slight drop in both the oil and the protein content
of the beans. Peculiarly, the drop is not associated with an increase in
fibre, as would be expected normally. The increase has come in the
nitrogen-free-extract. Farmers who grow soybeans are doing just as good
a job of taking care of their soil and of the beans as they ever did.
This leaves the reasons for the slight drop in the oil and protein levels
of the beans still speculative...Soybean processors wait with interest
the results of studies at the University of Illinois on soybean oil
characteristics and volume, and the causes for variations. The studies
include types of soil, weather and farming practices. Country grain
dealers would do well to keep oil and protein as well as grading factors
in mind when buying soybeans. It is quite conceivable that oil and pro-
tein will become bigger and more important factors in the price levels,
as protein has become in the price of wheat."

Science for Planning (London, October 18) contains an article,
the Farm "Bringing Science to the Farm." It describes the British
 county agricultural organizers, provincial advisory offi-
cers, research institutes, lectures, publications, films, conferences,
etc. It says in part: "The relationship between the research worker and

(Science for the Farm - continued)

the farmer is dual. Not only does the farmer need contact with the scientist, but the scientist needs contact with the farmer. A research worker who has achieved an important piece of research is likely to feel acutely discouraged if remediable circumstances prevent its use by farmers. Research workers should know, not merely what can be found out about farming by reading text-books or attending lectures, but the sort of things that can only be learned by contact with the soil and those who work on it, the features and conditions that vary from county to county and from farm to farm, even from field to field...In many ways, the education services are the most fundamental link between research and practice. In many branches of research the time-lag is at present too great. The factors involved are inadequate liaison with research, inadequate facilities for post-graduate training and refresher courses for lecturers at both agricultural colleges and farm institutes, who often act as both teachers and advisers. Facilities for teachers to spend a period at research institutes doing research work and for research workers to give short courses of lectures also seem frequently to be lacking. The conducting of local field experiments at educational institutions with the co-operation of research institutes has also been found a very valuable means of keeping contact between research and practice wherever it has been tried. Education is also the key to the psychological problem that confronts the popularizers of scientific agricultural knowledge. The crux of the dissemination problem is less the inculcation of new knowledge than the spread of what is already common knowledge among the scientifically minded, but which the ingrained caution of the farmer distrusts as new-fangled. This psychological difficulty appears to be due, not to congenital mental dullness among farmers, but to an inability to adapt themselves, arising from a variety of social and economic factors, above all from inadequate general education facilities."

Food Imports Food exports from the United States during the first Increase nine months of this year were virtually double those exported in the corresponding period in 1937, when measured in terms of value, the Department of Commerce reports. Exports for the three-quarter period of 1938 were valued at \$341,262,000, compared with \$173,150,000 for that period in 1937. Food imports in the comparative periods showed a decline almost as pronounced as the increase in exports. While the United States imported \$698,546,000 worth of foods during the first nine months of 1937, it imported only \$431,729,000 worth in the first nine months of this year. (New York Times.)

Color Study on artificial illumination in the color grading
Grading of farm produce shows that extreme intense light is not
necessary, it was reported recently to the Optical Society
of America. Ninety footcandles has been the minimum illumination recom-
mended. But checks at stations of the Department of Agriculture show
that 45 footcandles is sufficient in most cases, reported Dorothy Nicker-
son of the Bureau of Agricultural Economics. Only on dark overcast days
in December was an illumination of more than 100 footcandles required.
(Science Service.)

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Vol. LXXI, No. 23

Section 1

November 2, 1938

FOREIGN TRADE CONVENTION

With the world confronting two roads, one leading to "the final catastrophe of a new world war" and the other to benefits flowing from peaceful relations between nations, the United States is exerting its maximum influence toward helping mankind select the path to peace, Secretary of State Hull assured 1,500 delegates to the National Foreign Trade Convention last night. President Roosevelt, in a letter to the convention, added his promise to that of Secretary Hull that the Administration would continue its efforts to expand the reciprocal trade program. He said that the program, which is helping foreign trade, provides "an excellent illustration of what co-operation between business and government can and should be." (New York Times.)

RECORD WORLD COTTON SUPPLY

The Bureau of Agricultural Economics estimated yesterday that the 1938-39 world supply of commercial cotton would be about 51,400,000 bales, a new high for the third consecutive year. This is 1,500,000 bales larger than the 1937-38 supply and 11,500,000 bales above the ten-year average. In its annual cotton outlook report, the bureau said the world supply of American cotton would be about 25,700,000 bales--half the world supply. (Press.)

U.S.D.A. MUM SHOW OPENS

After a preliminary reception by Mrs. Henry Wallace, the thirty-seventh annual "mum" show of the Department of Agriculture was thrown open yesterday to the public in the greenhouse at Fourteenth Street and Constitution Avenue NW (Washington). The public will be admitted free daily from 9 a.m. to 9 p.m. There are 1,200 plants, including 170 varieties of the large Japanese chrysanthemums in the bed down the center of the conservatory and banked on either side are 600 plants of pompons or home garden hardy chrysanthemums in 400 varieties. (Washington Star.)

CORN STOCKS AND PRICES

Granaries throughout the Corn Belt were unusually well stocked with corn yesterday as government loans to 49,000 farmers on almost 48,000,000 bushels fell due, says an Associated Press report from Chicago. Visible supplies at terminal centers increased 7,946,000 bushels last week as old and new corn poured into the principal markets. Corn is selling in Chicago at approximately 45 cents, near the lowest price level in almost five years.

"Western Sportsmen"

California Cultivator (October 22) says in an editorial: "...In southern California sportsmen have formed a corporation known as the Western Sportsmen through which they are seeking to bring together the farmers and sportsmen on a friendly co-operative basis calculated to provide a certain amount of income from wild game for the farmers and some real sport for its hunter members. Only sportsmen who agree to obey all state game laws and respect the farmers' property rights are eligible to membership. Farmers who agree to co-operate, when necessary, feed the game on their farms to induce it to stay and multiply. Club members are advised, upon request, as to the quantity and condition of the game on the farms of the co-operating farmers and the fees charged for hunting, which fees are paid direct to the owners when the sportsman arrives for his day's hunt. We are told that so far the plan is working out very satisfactorily to both the sportsmen and the farm co-operators. It looks like a good proposition for both the farmers who have land on which wild game thrives, and the sportsmen."

Sweet Potato Starch Plant

The Laurel (Miss.) Starch Plant, only one in the United States where white starch is made from sweet potatoes, is getting well started on its fifth and what promises to be the best season of operations, says a report in the New Orleans Times-Picayune (October 22). Starch output for this season, scheduled to end January 1, is expected to total 2,000,000 pounds. Farmers have produced approximately 200,000 bushels of sweet potatoes for the starch factory this year, more than three times the production last year, which totaled 59,000 bushels, states W. R. Richee, plant manager. Interest in sweet potato growing has increased steadily since the plant was established in 1934 as an experiment. That year only 25,000 bushels were produced. Following years the farmers brought in 31,000 bushels, 43,000, 59,000 and now the record is expected to reach 200,000. It will not be long, Mr. Richee believes, before the factory will run the year round, with the dehydrating process perfected whereby the sweet potatoes can be stored indefinitely without danger of rotting. Experiments have already proved this possible by removing the water from the sweet potato without damage or loss to the starch content. Five chemists and a bacteriologist are working in the laboratory, some for the Bureau of Chemistry and Soils, some for the starch plant and some for the Mississippi Extension Service. Farmers are being paid 30 cents a bushel, run of field, for their sweet potatoes, instead of the 20 cents a bushel paid during the first few years. A recent survey of the crops of 10 farmers shows they are realizing an average of \$52.50 per acre, gross. More scientific farming methods have tended to increase the yield per acre.

N.H.Erosion Control

Erosion control structures on Ralph N. Johnson's Walpole (New Hampshire) farm withstood the hardest test possible during September, says Brandon Wright, New Hampshire coordinator with the Soil Conservation Service. Rainfall record for the month at Keene reached a peak of 10.39 inches compared with a September

(N.H.Erosion Control - continued)

normal of 3.49 inches in the previous 46 years of record taking. On the day of the hurricane 2.98 inches of water fell. Thus in one day the normal for the month was nearly reached, points out Wright. Johnson's farm was the first soil erosion control demonstration farm in New Hampshire. In the fall of 1937 Johnson, with the help of the N.H.Extension Service and the Soil Conservation Service, started work to curb the erosion of fertile top soil from his cropland. Johnson constructed a system of Mangum broad-based terraces located on contours on the slope, and designed to carry surplus water from the fields instead of allowing it to run down the slope taking with it a load of top soil. Strip-cropping is also practiced on the more level sections of the farm. (Manchester Union, October 22.)

1937 Farmers' Cooperatives Farmers' cooperatives did a total business of \$2,400,000,000 in the last year, an increase of 14 percent over the previous year, it is shown in a survey by the Farm Credit Administration. The number of buying and selling cooperative organizations is said to have grown by 148 to a total of 10,900 associations, with a membership of about 3,400,000. The farmers' cooperatives did a marketing business of \$1,960,000,000, a rise of 10 percent over the 1936-37 comparative period, and purchased goods valued at \$440,000,000, a rise of 23 percent in the volume of this type of business transacted. (New York Times.)

Farm Practice P. H. Stephens, Farm Credit Administration (Wichita) and the FCA writes in the Southwestern Social Science Quarterly (September) on the relation of FCA loans to farm management. He says in part: "Recently there was set up in the Washington office of the Land Bank Commissioner a farm management section. It will be the purpose of this section to assist our personnel, particularly the field forces, to acquaint themselves with good farm management practices, to observe these practices in servicing our loans, and to secure the cooperation of the Agricultural Extension Service in the servicing of individual loans in instances where such cooperation is mutually agreeable. A considerable degree of cooperation already exists in many districts between the various agencies of the Farm Credit Administration and the agricultural colleges and extension services both of a service and research nature."

Another article of interest to the Department in this Quarterly is "The Soil Conservation Districts Law of Oklahoma" by Lippert S. Ellis, Oklahoma A. & M. College.

Texas Soil "One hundred and eight West Texas counties are par-
Erosion ticipating in the West Texas Chamber of Commerce Soil and
Contest Water Utilization Contest," says Texas Weekly (October 29).
 "More than seventy million acres of Texas farm and ranch
land--approximately 42 percent of the total land area of the State--have
been placed in the running since the Soil and Water Utilization Contest
was launched last June...H. S. Hilburn, president of the W.T.C.C., pointed
out: 'The alarm with which soil scientists discuss this enormous
economic waste is easily understood when we stop to consider that every
year erosion takes out of Texas soil about twenty-one times the amount
of plant-food material removed by crops, and that 600,000,000 tons of
Texas soil is annually washed into the Gulf.' The fundamental idea of
the contest, in which cash prizes totaling a thousand dollars are offered,
is that of checking the damage of wind and water erosion and of bringing
about proper utilization of rainfall...Among conservation practices listed
on the contest score card are terracing, ridging, furrowing, strip-
cropping, building tanks and dams, eradication of undesirable plants
and rodents, planting windbreaks or shelterbelts, deferred grazing,
digging wells, vegetating waterways, and so on. Aid in planning the con-
test was given by the Extension Service of Texas Agricultural and Mechan-
ical College and by the Department of Vocational Agriculture...Representa-
tives of the Extension Service and the Department of Vocational Agri-
culture, together with representatives of the West Texas Chamber, the
Texas Experiment Station, Texas Technological College, the Texas farm
press, the Soil Conservation Service, and the Federated Women's Clubs,
will judge the contest at the end of the year...Regulations of the con-
test provide for this disposition of the prizes: 'The cash prizes shall
remain in the custody of the county soil and water utilization committee
for the purpose of promoting another contest for encouraging and reward-
ing junior agricultural work within the county...'"

Central Valley In "To Stop Desert Encroachment", the leading article
Reclamation in Scientific American (November) Phil Dickinson, Bureau
 of Reclamation, discusses the Central Valley Project in
California. He says in the concluding paragraph: "Construction of this
project involving besides the dams and canals many auxiliary features
such as bridges, tunnels, inverted siphons, and similar structures, is of
tremendous importance to California. The project is to be self-liquidating
under the reclamation laws, with revenues to be derived from the sale of
the project's two facilities, water and power. Present interest is con-
centrated upon the imminent construction era with its immediate benefits
of large-scale employment and heavy expenditures in many states for
materials and supplies. Of far greater significance, however, will be
the more lasting benefits of water conservation for improved navigation,
flood control, irrigation, salinity repulsion, and electric power genera-
tion, which will follow completion of this great federal reclamation
enterprise."

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Vol. LXXI, No. 24

Section 1

November 3, 1938

TWO-PRICE PROGRAM

The Administration will probably begin its experiment in the two-price program with the manufacture and sale of mattresses at reduced prices to poor persons, Secretary Wallace indicated at a press conference yesterday. He announced that Harry Brown, assistant secretary and chairman of the cotton committee, would meet on November 11 with representatives of producers, manufacturers and distributors of cotton to discuss methods of reducing the surplus in that crop. Secretary Wallace said that while no procedure had been evolved the conference would talk particularly about mattresses. He declined to elaborate on details pending further studies. Talking generally about other phases of the plan and its extension to additional surplus commodities, he said that one thought involved the supplying of a meal daily to school children who otherwise obtain inadequate food. (New York Times.)

MIDWEST DROUGHT

A Chicago report by the Associated Press says threats of a serious drought took shape in the midwestern farm belt yesterday. The Weather Bureau at Washington, gauging the results of a warm and arid autumn, warned that "one of the most severe and widespread fall droughts of record" had developed in the broad area extending from the Appalachian to the Rocky Mountains. The object of immediate concern was the winter wheat crop. Early seeded wheat was reported at a standstill and late planted grain was described as deteriorating except in eastern Nebraska and the Texas Panhandle. C. A. Donnel, forecaster at Chicago, said showers probably would fall in virtually all portions of the midwest within the next 24 hours.

HURRICANE MOVIE

The activities of the WPA in the recent New England hurricane have been combined into a movie, Shock Troops of Disaster, which will be given a screening at 3 p.m. today in the National Archives Auditorium (Washington), announces Lowell Mellett, director of the National Emergency Council. The one-reel film was produced by the WPA as a record of its 110,000 workers' activities in the storm area. (Washington Post.)

ECONOMIC ISOLATION

Assistant Secretary of State George S. Messersmith, addressing the National Foreign Trade Council yesterday, said "there is no such thing in this modern world as political isolation which does not result in a corresponding degree of economic isolation." Dr. Alexander V. Dye, director of the Bureau of Foreign and Domestic Commerce, said the United States held a commanding position in Latin-American trade in 1937 and the first half of 1938. (Associated Press.)

Mechanical Cotton Picker F. D. McHugh, of the editorial staff of Scientific American, is author of "Machines Pick Cotton, But--" in the November issue. In conclusion he says: "The cotton-picking machine is now considered by agricultural engineers no more as a thing to fear than as a sure cure for all the social and economic ills of the South. When it has been further perfected and when related problems have been worked out, it will be adopted by many cotton planters and will slowly have its influence on the South. There will be a gradual adjustment, the effect of which will be scarcely noticeable at any given time. Doubtless, after a period of many years, cotton-picking machines will be quite generally used throughout the South. A reasonable estimate of that 'period of years' would be somewhere between 25 and 50."

C. B. Smith Retires Clarence Beeman Smith, Assistant Director of Extension Work and Chief of the Division of Cooperative Extension, retired October 31. He had been in the Department 42 years, 30 of which were in extension work. Following the passage of the Cooperative Agricultural Extension Act of 1914, Doctor Smith became chief of the Office of Cooperative Extension Work, North and West. In 1921 he was placed in charge of Cooperative Extension Work for the entire country. In 1932 he also was appointed Assistant Director of Extension Work. With Dr. E. V. Wilcox, he published the Farmer's Cyclopedia of Agriculture in 1904 and the Farmer's Cyclopedia of Livestock in 1907. He is the author of many government bulletins and reports on farm management, and joint author with M. C. Wilson of a book published in 1930, The Agricultural Extension System of the United States.

Libraries for Farms "Do you know farm people have only about one sixth as good a chance for library service as people in cities?" asks Eleanor H. Garst in Successful Farming (November). She reports that the American Library Association has outlined the following steps to start a county library service in a community: "(1) Get all information about other county libraries from the American Library Association, 520 North Michigan Avenue, Chicago, Illinois. If there is a county library near by, visit it and see how it functions; (2) Enlist the support of some of the key people in your county--the school superintendent, the county and home demonstration agents, the presidents of the county-wide rural organizations, such as the Farm Bureau and the Grange; (3) Have speakers present briefly the facts about library service at important meetings of the PTA, the county Farm Bureau, and similar groups; (4) Call an all-county meeting and have speakers from your state traveling library, or from your own community, present facts for organizing a campaign; (5) Appoint a county library campaign committee; (6) From now on organize according to local needs..."

Hydroponic Farming

In the Farm Journal (November) V. G. Frost, under the title, "Soilless Farming," describes the various methods. "The Gericke process," he says, "uses shallow vessels of nutrient solution for growing plants. Supports are provided for the plants that feed on this liquid diet. Another method is the sand-culture method, in which plants are set in well-drained beds of sand and fed by soaking the sand with the nutrient solution. This method, used at the New Jersey Experiment Station, does not require supports for plants, for their roots take hold in the sand. Feeding the plants in these pure-sand beds becomes a regular chore...A little different from the New Jersey method is the one used at Purdue University. The plants have their roots in a water-tight box of pure sand or cinders; but instead of being fed with a hose, they get their nutrient solution by means of sub-irrigation. The liquid diet is pumped into the sand or cinders from below. When it floods the sand, the pump stops and the solution drains back into the plant soup kettle. A time clock makes the operation automatic...Experiments in Casper, Wyoming, a mile above sea level, use a modified form of soilless farming by periodically flooding two acres of common sand with a nutrient solution. Practically every variety of garden vegetable, fruit and flowers have been grown in this area where the growing season is less than 120 days. The system used is exceedingly simple. Irrigation water, from a shallow well, is pumped over a part of the land through ordinary trenches or ditches. On another part of the land, overhead irrigation is used. The various salts are mixed, packed in rather tight bags, and lowered into the well where the well water slowly dissolves the salt and carries it to the land in the form of a rather weak solution..."

Farmers' School

W. F. Holland, in American Agriculturist (November) describes the Sardis (Tenn.) Farmers' School. "In January 1933," he says, "classes were organized in which farmers met each week, studied, discussed their most important problems, and suggested practices which would be an improvement over the present ones. Very few farmers attended the first series of lessons and fewer still proposed to adopt and carry out the new practices. Interest grew, however, and the membership of the school has advanced in five years to a peak of 366 during the first series of lessons for this year. The average attendance for the last month of the recent series has been well over 300. The school functions as any other business meeting. After the usual preliminaries the meeting is turned over to the leader of the discussion, usually the agricultural teacher, and a round table discussion of about an hour follows. The ladies and men usually meet separately for a discussion of their respective problems. Occasionally, however, a joint discussion is held. The principal contribution of the leader is the presentation of prepared charts or film strips on data from the experiments carried out by the experiment stations. Outstanding agricultural authorities are sometimes invited to lead the discussion..."

Wheat Acreage Prospects A material reduction is in prospect in United States wheat acreage seeded for the 1939 harvest, the annual wheat outlook report by the Bureau of Agricultural Economics says. Prevailing low prices for the record world wheat production of 1938-39 and adjustment operations following record harvests of this season were cited as factors tending to restrict seeding for next year's harvest. The acreage allotted under the Agricultural Adjustment Act of 1938 for seeding the 1939 wheat crop is 55 million acres. This contrasts sharply with the 1928-32 average seedings of 76 million acres, and the 81 million acres seeded for the 1938 crop. Extent of participation by farmers in the Agricultural Conservation Program, however, is still unknown. Seedings of 55 million acres with average yields would produce 660 million bushels of wheat. This is slightly less than the average domestic disappearance of about 680 million bushels and would result in a reduction in carryover at the close of the next marketing year. If seedings for 1939 exceed the allotment of 55 million acres to any considerable extent, and average yields are obtained, an increase in the already large United States carryover appears unavoidable. (Wall Street Journal, November 2.)

40-Inch Combine M. N. Beeler describes a midget combine, 40-inch swath, in Capper's Farmer (November). If the small farmer raises enough grain to justify a binder, he can afford this machine, the author says. "Although it was not offered on the open market last season, dealers assert it was designed to sell at a price competitive with a power binder. At least a few were purchased on that basis. The new combine is mounted on rubber and operates from a power takeoff. It requires less width clearance than a binder and so will pass through ordinary gates and over ordinary bridges and along narrow roads without obstructing traffic. In harvesting grain in irregular or rolling fields it is more flexible than a binder. It will do as good a job of threshing as a larger machine. It can be set to shave the ground and so will pick up down grain that a binder won't handle. In weedy grain it will perform as well as the larger 60-inch model of the same make. It will pick grain up from the swath if conditions make that necessary. And of course it will harvest and thresh all the grains and a variety of seeds including clovers, timothy, lespedeza, soybeans, and the combine types of sorghums..."

Solar Heater A solar heater, which absorbs heat from the sun's radiation and puts it to use for cooking and similar purposes, has been patented by Dr. C. G. Abbot, secretary of the Smithsonian Institution. The sun's rays are caught by the apparatus, which uses the sun's energy to heat oil. The oil in its turn heats an oven, a boiler or whatever device desired. (Science Service.)

DAILY DIGEST

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Vol. LXXI, No. 25

Section 1

November 4, 1938

LIVESTOCK, TOBACCO The beginning of a new cycle of livestock production in which supplies of cattle, hogs and sheep will increase was predicted yesterday by the Bureau of Agricultural Economics, says a report in the New York Times, in a series of surveys on the annual farm outlook. These surveys indicated that farmers would benefit generally by low prices of feed, that returns on livestock would be moderate but steady and that prices to consumers would be maintained at attractive figures.

The Bureau of Agricultural Economics said yesterday the outlook for tobacco growers next year appeared "rather favorable," says an Associated Press report. Production this year and prospective 1939 stocks were said to be "fairly well in line" with anticipated domestic consumption and export for the 1938-39 season. The bureau warned, however, against over-production next year.

FSCC BUYS MILK, HIDES The Federal Surplus Commodities Corporation decided yesterday to buy up to 40,000,000 pounds of surplus milk in the New York area to assist in maintaining current prices paid producers through November and December. The milk, it was announced, would be processed under contracts to be let by the corporation and distributed through state relief agencies to needy persons. (Press.)

The Federal Surplus Commodities Corporation yesterday sold to highest bidders 76,164 of the 107,688 hides and skins remaining from stocks purchased in drought-relief activities. The sales were at prices 1 to 1 1/2 cents above bids which were rejected on September 8. (Press.)

CORN HUSKING CHAMPION Ted Balko of Redwood Falls, Minnesota, won the 1938 national corn husking championship yesterday. The 33-year-old Minnesotan, who was credited with husking 22.24 bushels during the 80-minute contest, was more than three bushels short of the 25.78 bushels by which he had previously won the national title in 1934 at Fairmont, Minnesota. (Associated Press.)

TARIFFS IN SUDETEN LAND American buyers are rushing to get goods out of the Sudeten land before that former Czechoslovak territory is placed under the higher tariffs the United States levies on German-made goods, says a Berlin report by the Associated Press. In Washington officials said that higher tariffs would not apply to the Sudeten land until the final boundaries between the expanded Germany and Czechoslovakia were drawn, possibly in two or three months.

3-Dimensional Weather Device A.K., in Scientific American (November) reports that "a device invented by Denis and J. Kenneth Bartlett of London, distinguished meteorologists, provides the flier with a three-dimensional weather indicator. The instrument enables the pilot to 'see' the weather not only at sea level, but at various altitudes. It is constructed of light sheets of cellulose acetate, which are transparent and non-inflammable. A six-inch cubic box is built up. On the base of the box is drawn a map of the area to be covered by the airplane. The first shelf, which is set only a few inches from the base, shows the weather conditions at ordinary sea-level; that is, barometric pressures, wind directions and magnitudes, temperatures, air mass fronts, and so on. The second shelf gives conditions at 3500 feet, and the third at 7000 feet. The top of the box represents a height of 10,000 feet. All the data can be readily sketched in and just as readily rubbed or washed off. The number of altitude shelves can be increased if required...Apart from its value to pilots in actual flying, the instrument should be of great practical use in schools of meteorology and navigation."

Radios for Farmers Capper's Farmer (November) reporting on progress in radios for farmers, says: "In the powering of receivers for use on farms, where highline electric service is not available, there has been steady and important improvement...A batteries, although they have been highly efficient, were inclined to be bulky. The size of these batteries has been materially reduced, and at the same time their efficiency and length of service have been maintained and increased. Special batteries have been developed for use with the new one cell radio receivers. One new development in power packs and B batteries has been a reduction of space required. In one type the old cylindrical cells connected in series, have been replaced by zinc plates, arranged in layers, and enclosed from air contact. This arrangement is said to give longer life and steadier power to the battery. These refinements in battery construction are making it possible for farmers to obtain radio reception of a quality on a par with that enjoyed by people living in the towns and cities..."

Science Writers The Clement Cleveland Medal "for outstanding work in the campaign to control cancer" was presented recently to the National Association of Science Writers by the New York City Cancer Committee. Mrs. Robert G. Mead gave the medal to William L. Laurence of the staff of the New York Times, who was designated to accept the medal in behalf of his associates. Mrs. Mead praised the National Association of Science Writers as a young organization that is working to add to the fight against cancer "the powerful weapon of safe publicity". (New York Times.)

Great Plains
Land Use

Results of concentrated efforts by national agencies and the Montana Water Conservation Board during the last four years definitely point the way toward solution of Montana's land use and water storage problems, reports D. P. Fabrick of the northern great plains committee, to Gov. Roy E. Ayers. Fabrick's report shows construction of storage for 443,500 acre-feet of water completed or under construction, furnishing water for 415,000 acres of land. In addition to 181 irrigation reservoirs, more than 2,000 stock-water ponds have been built. The program has included reseeding more than 350,000 acres to grass and diking and contouring or terracing 20,000 acres, directly aiding by irrigation alone at least 5,000 individual families, according to the report. Members of the northern great plains committee are representatives of the Bureau of Reclamation, the War Department, Department of Agriculture, Works Progress Administration and one representative from each state in the north plains region--Montana, North Dakota, South Dakota, Wyoming and Nebraska. (Great Falls Tribune, October 25.)

Star Farmer
of America

"Last month Hunter Roy Greenlaw, 21, Stafford County, Virginia, was selected from 170,000 farm boys studying agriculture in the public schools of the country, as the Star Farmer of America," says Southern Planter (November). "The judges this year were Dr. George F. Zook, executive secretary, American Council on Education; S. G. McAllister, president, International Harvester Company; and Dr. A. G. Black, chief, Bureau of Agricultural Economics. The honor carries a \$500 cash award donated by the Kansas City Star. Hunter Greenlaw was 16 years old when his father died and left him to carry on the 435-acre farm. By careful records of his operations and long hours of hard work, Hunter kept the place going and completed his course in agriculture at the Falmouth High School...He has nearly doubled the number of livestock on the farm, worked out complete rotations for all his fields, and increased the soil fertility by proper fertilization, and the use of legumes, to a point that grains average 6 bushels more per acre and corn 3 barrels more per acre than when he took charge...He has bought a tractor and jointly with two other farmers, a small combine for harvesting small grains, lespedeza seed and beans. Numerous other shifts have been made on the farm in the interest of economy and efficiency. He has done this on soil that has been under the plow for 150 to 200 years. Part of the land was tilled by George Washington. It should be an inspiration to all farm youth to know that land doesn't wear out when properly farmed."

Future for
Rural Youth

"Despair or Hope for Rural Youth" is the title of an article by M. M. Chambers, American Youth Commission of the American Council on Education, in Rural America (October). He says in part: "Aside from the far-reaching programs of the national government in rural credits, crop-control, and soil conservation,

(Future for Rural Youth - continued)

whatever there may be of optimism for rural youth who remain on the farm is based upon the following four factors, among others: (1) the possibilities of the expansion of those types of intensive agriculture which produce what were once known as luxury foods, but which now rapidly enter the category of staple necessities as the national standard of living rises and as the means of rapid transportation improve; (2) the likelihood of developing a diversified and fertility-conserving permanent agriculture to supplant the short-sighted 'soil mining' operations which have always characterized our one-crop areas, such as the cotton belt, the tobacco belt, the wheat regions, and to a lesser extent even the corn belt; (3) the possibility of vastly increased use of crude agricultural products now largely wasted or unused, for industrial purposes such as the manufacture of paper, plastics, motor fuels, paints and varnishes, and scores of other much-needed commodities which industrial chemistry now begins to demonstrate may be transmuted out of farm crops which have hitherto been used exclusively as food for animals and man; and (4) the likelihood of retaining the best elements in American rural culture, and improving both the quantity and quality of essential social services, including public education, recreation, health, and community cooperation, so as to build up in America an entirely new picture of a prosperous and cultivated agrarian society, with a way of life peculiar to itself and superior in many respects to our present urban culture, rather than a pale imitation thereof."

Texas Cotton Improvement "Texas made a long step in the right direction when, last spring, 22,589 farmers organized one-type cotton improvement communities and planted 623,897 acres to good staple," says an editorial in Farm and Ranch (November 1). "Adding this acreage to that planted to good staple on many one-variety plantations and individual farms, acreage in better staple in 1938 approximated 1,000,000, according to E. A. Miller, Extension Agronomist. One-type communities were organized in every one of the twelve Extension Districts, and as a result, the first report on staple classification for Texas showed only 1 percent of cotton ginned to September 1 to be untenderable on staple. Later reports, of course, will increase this percentage as short staple districts make their reports. Out of 222 one-type communities in Texas, twenty-nine have requested classification under the Classification Act passed in the spring of 1936. Other communities have organized and have sales days in which competitive bidding for uniform lots is asked. The records thus far show that this better staple is producing as much and more per acre as the mongrel or short staple seed, and that premiums have run from \$4 per bale and up. With the start made in the production of more desirable staple, plus the increase in yield due to soil conservation measures, Texas will soon get back into the cotton business..."

DAILY DIGEST

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Section 1

November 7, 1938

DEPT. STUDIES One of the Department of Agriculture's marketing ex-
MARKETS ABROAD perts is en route to Europe to try to expand exports of surplus domestic farm products, says an Associated Press report. The official, F. R. Wilcox, vice president of the Federal Surplus Commodities Corporation, carries instructions of Secretary Wallace to visit England, Norway, Sweden, Belgium, the Netherlands, France and possibly Germany and Italy, to investigate marketing possibilities. Recently foreign trade experts in the department reported that the outlook for farm exports next year was less favorable than for this year, largely because of stiffening trade restrictions, greater competition from other agricultural countries and a slump in world business.

BAE POULTRY, The Bureau of Agricultural Economics predicts that
DAIRY OUTLOOK because of ample supplies of feed available at favorable prices, the dairy industry will continue to expand during the next few years. Milk production, which in the summer and fall of 1938 was the highest in 14 years of record keeping, is expected to reach a new peak during the coming winter, the bureau said. Fluid milk and cream consumption has declined since reaching a high in 1937, while consumption of other dairy products has remained practically unchanged, it was reported. Production of turkeys, chickens, eggs and other poultry products also is expected to increase in 1939 because of favorable feed prices. (Associated Press.)

DPMA SELLS The Dairy Products Marketing Association, Inc., a pro-
BUTTER SUPPLY ducer cooperative financed with federal funds, announces a schedule of prices at which it will resell butter about 4 cents a pound higher than it paid in accumulating supplies in the open market in the last few months, says an Associated Press report from Chicago. Resale butter in Chicago, Detroit and Toledo trade will range from 28 cents a pound for 89 score grade to 29 3/4 cents for 92 score.

MUM SHOWS The two free government mum shows (Department of Agri-
ENLARGED culture and Botanic Garden) have been freshened up, with more than 500 new plants put into each, says a report in the Washington Star. In the 37th annual chrysanthemum exhibition of the Department of Agriculture 200 of the large Japanese blooms and nearly 400 of the pompon type plants were added to the show.

Electricity in Rural Nebraska "Nebraska is a typical example of the trend toward electrifying rural homes and villages west of the Mississippi River," says George Kline, secretary of the Eastern Nebraska Power District. He reports two manufacturers are making a small air-conditioning unit that can be attached to the ceiling of farm homes, and small cold storage locker plants for farmers are being developed. At the present time approximately eight percent of the rural homes of Nebraska are served by electric power, while by 1940 the twenty-eight public power districts now organized in the state will serve forty percent of such homes, he estimates. During the summer of 1938 the department of mechanical engineering, University of Nebraska, held a rural electrical school. Typical power problems, refrigeration problems and methods of wiring for the farm were taken up. Furthermore the university is instituting a course in rural electric and plumbing installations this fall at the college of agriculture. In Saunders county, Nebraska, an eastern life insurance company has started construction of a model farm home in which a complete plumbing and electrical wiring system will be installed, with air conditioning, electric refrigeration and a refrigerated storage unit. Another development will be the erection of summer cottages along the rivers in eastern Nebraska, the cottages to be air conditioned and serve as a summer resort and haven for Nebraskans who suffer from hay fever. (Ice and Refrigeration, November.)

Microfilm Printer "The American Documentation Institute has recently added a film printer to its other microfilming facilities," says the Journal of Documentary Reproduction (Summer).

"This machine was built to exacting specifications which included perfect safety for the negative at all times, a crisp unblurred image, and a speed of 1,500 exposures per hour. A film-printing service is available to research workers and institutions. Rates have not yet been determined, but quotations on negatives or positive duplicate microfilm prints will be furnished if the originals are forwarded to the American Documentation Institute."

Science Clubs for Youth High school science classes will have new meaning as the result of the formation on a nation-wide basis of science clubs for young people from 12 to 18 years old, it was announced by Robert T. Pollock, president of the American Institute of the City of New York. This is an outgrowth of the Institute's 300 clubs with 6,000 members in New York City and vicinity, which conduct an annual Science Fair, discuss current problems at the Science Congress and write for their own journal. Members of the new organization will be given an opportunity to conduct actual scientific research and will contribute to an official science newspaper, said to be the first of its kind in the country. The organization will be known as the American Institute Science and Engineering Clubs. (Science News Letter, November 5.)

Department American Forests (November) contains an article by
Reorganization G.F. Collingwood, "Secretary Wallace Reorganizes His De-
partment". A short editorial on the same subject says
in part: "All land use programs involving conservation on farm lands,
including forestry work, is consolidated in the Soil Conservation Serv-
ice. The important feature, however, is that the reorganization clear-
cuts conservation activities and integrates them as essential segments
of local agricultural and land use problems, thereby effecting more
harmonious and more efficient relationships between all bureaus and
agencies of the Department. Furthermore, it gives the state foresters
and local land users, both farmer and timber owner, a voice in shaping
federal land use programs and in carrying them out. The fact that the
plan puts a check upon the freedom of conservation as well as other
bureaus of the Department to engage in over-lapping studies and programs
on their own account is a merit rather than a defect that should make
for order, economy, efficiency and less bureaucracy."

Courses Food Industries reports: "Food engineers, a type of
in Food professional man widely needed in the food industries but
Technology as yet not trained by the universities, are to be educated
at Oklahoma A & M College. The division of engineering
of this school has set up a new four year curriculum which will lead to
the degree of Bachelor of Science in Food Engineering. The purpose of
the course is to produce men particularly qualified to cope with the
technical problems encountered in operating a food plant and distributing
its products..."

Ice and Refrigeration says: "Food technology, a new course of
training at the University of Maryland to prepare young men for a
career in the food industry, has been announced by President H. C. Byrd.
The course will include intensive training in biology, chemistry, and
engineering. Particular emphasis will be placed on basic training in
general organic and qualitative chemistry; general and food bacteriology
and sanitation; and the principles of mechanical and electrical and
chemical engineering, and unit operations in modern factories, said
Dr. L. H. James, bacteriology department head. Students will spend the
summer working in plants to learn by first hand experience how to apply
factual knowledge to operating processes of present day food factories..."

Exchange Science's international character is to be stressed
Lectures through a new exchange of lecturers between the United
States and Great Britain, arranged for in London and sup-
ported financially by the Pilgrim Trust, established by Edward S. Hark-
ness, an American. In alternate years, noted British men of science,
chosen by the Royal Society of London, will come to America to speak;
and in the intervening years leading American scientists, selected by the
National Academy of Sciences, will return these visits. The series will
be inaugurated on December 8 this year, when Dr. Irving Langmuir of the

Exchange Lectures (continued)

General Electric Company research laboratory will speak in London. The first English lecture will be presented in Washington during the spring meeting of the National Academy of Sciences, by Sir William Bragg, president of the Royal Society. (Science News Letter, November 5.)

Forecasting
of Floods

The Chief of the River and Flood Division of the Weather Bureau, Merrill Bernard, is author of "Defeating the Floods by Preparedness" in American Forests (November). He says in part: "Flood forecasting is rapidly developing a hybrid science--hydro-meteorology. The respective roles of the meteorologist and the hydrologist have, until now, been fairly free of confusing overlaps. The meteorologist has dealt with the atmosphere, including water in the form of vapor, which he has, figuratively, handed to the hydrologist as it condensed and fell as rain. The hydrologist, in turn, has undertaken to follow the 'hydrologic cycle' from rainfall to the return of run-off waters to the sea and of evaporated moisture to the atmosphere. This distinction disappears, however, in the problem of flood forecasting which necessarily embraces the functions of both sciences. The expansion of the Weather Bureau's river and flood service takes into account the application of these related sciences. The work has been regionalized, the country having been divided into ten hydrologic regions in which trained hydro-meteorologists will apply specialized knowledge, not only in rainfall and the resulting flood, but of the meteorologic causes of rainfall as well."

Rehabilitation
Farms Report

An "Analysis of 70,000 Rural Rehabilitation Families", a joint report of the Bureau of Agricultural Economics and the Farm Security Administration, is now available. The report, prepared by E. L. Kirkpatrick, is based upon studies in Alabama, Arkansas, Michigan, Wisconsin, Minnesota, Montana, Wyoming, and Colorado, and in other selected type-of-farming areas. The report shows that practically all of the rehabilitation clients were bona fide farmers. Most of the applicants were tenants, exceeding their percentage in the total farm population. In general, the clients had spent fewer years on the farms they were operating at the time they applied for aid than the average of all farmers in their States or regions. For the most part, the groups were made up of middle-aged farmers whose families were larger than average for the farm population in their respective States or regions, and represented farm population below the minimum for decent standards of living.

Large 1938
Hay Crop

A 1938 hay crop of 92 million tons--the largest in ten years and one of the largest on record--has been forecast by the Department of Agriculture. The 1937 crop was 83 million tons and the 1927-36 average (including several drought years) was less than 80 million tons. This year's crop, together with last spring's farm carryover stocks of nearly 13 million tons, makes the second largest seasonal supply per animal unit in the 26 years for which comparable data are available. (American Produce Review, November 2.)

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Section 1

November 8, 1938

COTTON CROP FORECAST

The Crop Reporting Board forecasts a cotton crop of 12,137,000 bales, based on conditions as of November 1. Such a crop would compare with 18,946,000 bales harvested last year, the largest on record, and 13,201,000 bales for the 1927-36 average. The report of the Bureau of the Census shows 10,124,708 running bales ginned from the 1938 crop prior to November 1, compared with 13,160,423 for 1937 and 9,882,530 for 1936.

POTATOES, TRUCK CROPS

A more favorable outlook for potato growers in 1939 is indicated by the Bureau of Agricultural Economics, largely as a result of prospects for considerable reduction in plantings. If present prospects for smaller production and improved consumer purchasing power are realized, the bureau said: "Both prices and income received by potato growers in 1939 should be materially higher than in other recent years." The potato acreage in 1939 is expected to be about 8 percent smaller than this year.

The bureau also says a small reduction in truck crop acreage for 1939 is indicated. The relatively low prices received this year by growers of important truck crops for fresh market shipment are cited as the main factor pointing to a slight reduction in the total acreage planted for the coming year. In 1938 the acreage and production of truck crops for market were the largest on record.

MUM SHOWS

The Washington Star reports that the Department of Agriculture mum show is scheduled to close tomorrow at 9 p.m. and that the Botanical Garden show will be open for at least another week, 9 a.m. to 4 p.m. weekdays and 9 a.m. to noon Saturday.

NATIONAL PARKS REPORT

The federal park system has been enlarged up to a total of.....144 areas, covering more than 19,000,000 acres in the continental United States, Hawaii and Alaska, it is announced by Arno B. Cammerer, director of the National Park Service, in his annual report to Secretary of the Interior Ickes. Total travel to the various areas of the park system reached an all-time high of 15,133,432 for the travel year ending September 30, 1937, and the pre-season travel during the following fall and winter and spring months reflected an increased use. The number of forest fires reported in the western national parks was the lowest since 1930. (Washington Post.)

Cooperative Food Industries (November), commenting on the fact
Movement that the cooperative movement is growing in many fields,
says: "Especially among agricultural interests, there is
a constantly increasing development of organizations for both purchasing
and selling on a cooperative basis. This trend may have an important
significance for food manufacturers, just as it has for other marketers
of goods in the rural areas of America. The experience of fertilizer
marketers should be noted in this connection. Some of the firms who used
to sell only through dealers or direct to farmers thought they would have
nothing to do with farm groups purchasing in cooperative fashion. That
proved to be quite a mistake. Other companies accepted such orders--
in fact went out after them. Those who would have nothing to do with the
co-op movement found themselves without customers in important areas where
previously they had done much business. Food industry marketers may have
a like experience if they neglect the growing number of agricultural pur-
chasing co-ops. They offer a splendid field for processed food because,
strangely enough, farmers wives buy canned goods, and other manufactured
food products. "

Community Refrigerating Engineering (November) contains a
Refrigeration paper by C. J. Hurd, Tennessee Valley Authority, on a
scheme of community refrigeration for farmers, under the
TVA and the University of Tennessee (mentioned in a short Science Service
report in the Daily Digest, November 1). This paper, which contains
illustrations and plans for a small walk-in cooler, concludes: "Farm
groups will not ask for a community refrigerator until they are fully
informed as to its place in their area. Agricultural Extension workers
and Vocational Agriculture instructors can do much to inform farmers of
this development and to evaluate its application to their communities.
Refrigeration manufacturers are encouraged to apply their technical
knowledge in suggesting refrigeration equipment best suited to the com-
munity needs. It will be only through this procedure that a well rounded
farm refrigeration program can be launched. Community refrigeration
can be adapted to certain areas where more specialized refrigeration
equipment, such as individual farm units or freezer lockers, does not
apply. And it is the starting point for a long term development in both
farm and community refrigeration."

Farm Forestry American Forests (November) contains a short account
in Nebraska of the recent National Shade Tree Conference. "The
Nebraska plan of cooperation with commercial nurserymen
as a part of the farm forestry planting work," it says, "was described by
Director W. H. Brokaw, of the Nebraska Extension Service. Giving special
credit to the nursery industry for the part it has played in developing
farm forestry in Nebraska, Director Brokaw stated that the Nebraska Ex-
tension Service has cooperated with the nurserymen since the first Clarke-
McNary money was allotted to the state. This plan is based on the prin-
ciple that a small charge for planting stock results in more definite

Farm Forestry in Nebraska (continued)

financial interest in planting. As a result, Director Brokaw said: 'The farmer, whose land is improved by a windbreak demonstration, pays a handling, packing, and shipping charge on the stock, and plants and maintains the demonstration. Broadleaf stock is purchased, under contract, from the Nebraska Nurserymen's Association and evergreen stock from the Forest Service Nursery at Halsey, Nebraska.'..."

National
Planning

Plan Age (November) contains "Next Steps Toward National Planning" by George B. Galloway. In his opinion, the most important next steps in national planning for the United States are: "(1) establishment of a permanent central planning agency; (2) creation of a Bureau of Industrial Economics; (3) public management of certain natural resource industries and the railroads; (4) enactment of the industrial reconstruction bill; (5) undertaking a bold program of public investments in low-rent housing, electric power and railroad equipment; (6) creation of a national capital issues banking system." Discussing the creation of a Bureau of Industrial Economics, he says in part: "We need better knowledge of the behavior of our economic system. Thanks to the U. S. Bureau of Agricultural Economics we are much better informed today about the economics of agriculture than about industry...We need in the field of industry current statistics and data at least as adequate as those provided for farmers by the Bureau of Agricultural Economics...The organization might be very simple, operating through informal consultations of business, labor and government; or it might be elaborate and complete, as sketched in Dr. Ezekiel's book, \$2500 a Year (Dr. Ezekiel is Economic Adviser to Secretary Wallace), and as provided for in the industrial expansion bill recently introduced in Congress."

Rio Grande
Water Use

"Dramatic possibilities lie in the struggle for water that is in progress along our Mexican boundary, as sketched by W. W. DeBerard in this issue," says an editorial in Engineering News-Record (November 3). "A great agricultural province depends for its survival on the dry-season flow of the Rio Grande, and if only a short cycle of drought years should come it would face destruction. Among the elements of the case are overdevelopment of land, conflict of riparian and appropriation claims to the river's water, inaction of the state in administering the water used by its citizens and failure of the federal government to control the use of a stream governed by international obligations. Back of all is a serious lack of knowledge of the sources and variation of flow, a lack that only recently has been remedied in part by painstaking water surveys. No more striking lesson of the need for study and control of water resources can be found in American river experience, for, although the Rio Grande problem has become one of critical urgency, a solution is not yet in sight. One first step would be adjudication of present water claims on the American side of the river."

Interstate
Movement
of Bees

"According to F. L. Thomas, state entomologist for Texas, close cooperation is to be maintained this year between his department and the Public Safety Commission of the state, as a result of regulations passed by the legislature," says an editorial in American Bee Journal (November). "These regulations make it necessary for honeybees shipped into the state to be accompanied by a certificate of inspection, from the state entomologist or other authorized officers, stating that the bees and equipment are free from disease. The certification must be based on inspection of the bees within sixty days prior to the shipment. Ten days in advance, notice must be filed with the state entomologist and a copy of the certificate of inspection presented. The unauthorized movement of bees from one state to another has been the source of much irritation. Because disease is at times moved into clean territory serious problems have arisen. To meet objections to unauthorized movement several states now prohibit the movement of bees on combs into their territory...It is important to develop a plan of action which will offer a minimum of delay to the beekeeper while protecting the public against the spread of disease."

Medical Care
Under FSA

"It is extremely important that the members of the Louisiana Medical Society study the medical care program for Farm Security Administration families which is a supplement to this issue," says an editorial in the New Orleans Medical and Surgical Journal (November). "Wisely the Farm Security Administration has recognized that their responsibility begins with the health of the farmer. It is utterly impossible to expect a man sick and ailing, or partially disabled from some remedial cause, to be able to operate a farm with the hard physical work that is necessary to till the soil. As pointed out by Dr. Williams (Medical Director, FSA), it is essential that the families be kept in reasonably good physical condition. The word families is used advisedly because on a farm every one must do his share of work if the farming is to be a success...It would seem from the suggested understanding between the physicians of any parish and the FSA that a very fair, just and equitable arrangement is being presented to the members of the State Medical Society. The choice of physician is permitted, the scale of charges is that which is a standard for the usual professional charges for a people of moderate means. Funds of between 15 and 30 dollars per family will be available to pay the doctor. This represents roughly about 200,000 dollars which would be distributed to the physicians for services rendered to a group of people from whom undoubtedly the physician has never before received compensation. The arrangement as far as can be judged is not bound by red tape and, what is extremely important, is to be conducted in conjunction with committees from the several parish medical societies. Dr. O'Hara, the President of the State Medical Society, points out in his letter to Dr. Williams, that the family has a free choice of physician and that the plan provides for action by the medical society as a parish unit and as a state whole. These two desiderata are the fundamental basic points which the medical profession is insisting upon in regard to insurance schemes and the like..."

DAILY DIGEST

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Section 1

November 9, 1938

COTTON FUTURES Cotton futures advanced 30 cents to 35 cents a bale at New Orleans yesterday under buying induced by the government crop forecast of 12,137,000 bales. Some investment demand was apparent when trading was resumed after the customary 20-minute suspension and together with trade calling lifted December contracts to 8.66 cents a pound; January to 8.54; May 8.36; and July 8.22 or 6 to 7 points above the previous closing. (Associated Press.)

MARKETING APPOINTMENT Dr. Carl B. Robbins, of California, has been appointed assistant director of marketing and regulatory work in the Agriculture Department. He is a former professor of economics at Stanford University and came to Washington in 1935 as an economist with the AAA. (Washington Post.)

POULTRY SHOW Poultry fanciers of Queen Anne's County (Md.) will place their prize stock on display today in the ninth annual show of the county poultry and game association. The 3-day show will include sections devoted to chickens and turkeys, game, baby chicks and eggs. (Associated Press.)

RECORD AIR EXPRESS Gross revenue from air express handled in the nationwide service of the Railway Express Agency in September was 6 percent above October 1937, the previous all-time high month, the agency reported yesterday. Revenue per shipment was the highest for 12 months. (Press.)

HUNTING PRECAUTIONS Hunters were warned yesterday to take extraordinary precautions in shooting within a half mile of camps of the Civilian Conservation Corps by E. Lee LeCompte, Maryland State Game Warden. Mr. LeCompte praised the young men of the corps for their "excellent work for our state not only for forestry but for wildlife and for the prevention of erosion." "There are a large number of CCC camps in Maryland," he said, "and we appeal to you to be careful if you go hunting not to shoot toward CCC camps or in the vicinity where the men are working." Mr. LeCompte also urged cooperation from hunters in preventing fire from destroying forest areas. He said: "Your cooperation will prevent serious forest fires and save not only wildlife, but covers and food on which wildlife must depend." (Baltimore Sun.)

Animal Health Broadcasts A new fall and early winter series of radio broadcasts, dealing with seasonal live stock health problems, is being launched over a large group of radio stations this month by the Associated Serum Producers under the sponsorship of the American Foundation for Animal Health. The broadcasts are being made in connection with farm programs and market report periods on leading stations in farm areas. All the broadcasts urge the farmer to call his veterinarian at the first sign of sickness in his live stock and to rely on veterinary advice for accurate diagnosis and treatment. Among the subjects being covered in the broadcasts are rickets, hog cholera, garget, fall losses in feeders, grass poisoning, cornstalk disease, and similar health problems. (Journal of the American Veterinary Medical Association, November.)

A.A.A.S. Gets Science (November 4) reports that the Scientific Mo. Monthly has been transferred from its former owner to the American Association for the Advancement of Science, and is now edited in the Washington office of the association. "The transfer of the journal to the association, combined with efficient editorship," says Science, "should give the country a better journal of general science than it has ever before had. It should greatly increase the membership of the association and have the cooperation of all workers in science. There will be no change in editorial policy, but an endeavor will be made to make the journal not only authoritative, as it has always been, but of greater interest to those educated people who wish to follow the advances and share the spirit of science, the dominant factors in modern civilization..."

Camera for Bread Scores To provide a permanent record of all bread scored in the laboratories of the American Institute of Baking, Dr. William H. Cathcart, head of the research division, recently designed a new style of camera especially for this work, according to a report in Northwestern Miller (November 2). Baking firms that are members of the American Bakers Association are privileged to send in samples of their bread for a bread score report. The camera was built to order and is believed to be the first ever made in this country for this specific purpose. The scoring of bread is based on an allowance of 30 percent on external qualities and 70 percent on internal, as follows: External: Volume, 10; color of crust, 8; symmetry of form, 3; evenness of bake, 3; character of crust, 3; break and shred, 3. Internal: grain, 10; color of crumb, 10; flavor or aroma, 15; taste, 20; texture, 15.

Soil Erosion The December Science Digest contains "The Menace of Soil Erosion," a 4-page condensation of "General Aspects of the Soil-Erosion Problem" by Hugh H. Bennett and W. C. Lowdermilk, Soil Conservation Service, in the 1938 Yearbook, Soils and Men.

Shrinkage Regulations Gladys R. White, Bureau of Home Economics, in the Journal of Home Economics (November) reports that the Federal Trade Commission has promulgated shrinkage rules for woven cotton goods. The rules apply to garments made from woven cotton goods as well as to yard goods. She says in part: "The new rules define 'residual shrinkage' as the shrinkage remaining in the fabrics after they have undergone a shrinking process. The test recommended for determining residual shrinkage is contained in Commercial Standard CS59-36, 'Woven dress fabrics; testing and reporting.' Labeling is not compulsory, but provision is made for any labels that are used. All woven cotton fabrics labeled with such terms as 'full shrunk' and 'will not shrink' must have been fully shrunk so that no residual shrinkage is left in them. Partially shrunk fabrics may be labeled as 'shrunk,' 'pre-shrunk,' or with similar terms, provided additional information is given concerning the percentage they will shrink in both the warp and the filling or in the direction having the greater shrinkage. For example, the label might read: 'Pre-shrunk--residual shrinkage will not exceed warp--%, filling--%, Commercial Standard CS59-36.'..."

Electric Costs for Farm Homes "In a recent issue of the Michigan Electrical News, issued by the state organization of the Rural Electrification Administration, they give some interesting facts on what one kilowatt hour of electric energy will do," says an editorial in Michigan Farmer (November 5). "For instance, in the farm home, it will light a 40-watt lamp for 25 hours, or run a flat iron for two hours, or pump 1,000 gallons of water from a shallow well, or wash 70 pounds of clothes, or refrigerate food for 18 hours, or cook a meal on an electric range, or run a sewing machine for 8 hours, or tell time for 20 days, or operate a mangle for 50 minutes, or take care of the door bells for a month and a half, or toast bread for 8 mornings, or percolate 40 cups of coffee, or operate the kitchen mixer for 20 hours, or heat 3 gallons of water from 65 degrees to 212 degrees, or run a 6-inch fan for 50 hours, or operate a razor blade sharpener for 40 hours, or heat a hot plate for two hours, or make 30 waffles. And these are but a few of the many uses a farm wife can make of such a servant."

Yearbook Comment "The U. S. Department of Agriculture in its Yearbook for 1938 has taken occasion to present unusual and timely information concerning methods of building soil fertility and stopping erosion," says an editorial in Hoard's Dairyman (November 10). "It is a work of many authors. It is an attempt to make all people sensitive to our present methods of farming and the careless and wasteful practices that have been followed in handling this most important heritage--a fertile soil...The Yearbook is a good book for all persons to read. Good farmers and teachers in agronomy will find it a real source of help for getting a better understanding of how to conserve the fertility of the land and make it more productive...The soil should be of interest to every person for no nation can develop a strong, resourceful people without a fertile soil. The Department of Agriculture can be commended for bringing together so much useful information."

Citrus Feed in Dairying "Citrus pulp, which has proved as good feed for dairy cows as beet pulp and which sells at a lower price in Florida, is becoming an important factor on the local feed market and seems destined to grow in importance," says Florida Grower (November). "Started in a small way in 1932 by a single drier, which processed the byproducts from two Tampa canneries, production has increased to about 10,000 tons annually. Six plants in Florida are engaged in the manufacture, two are operating in Texas, and a number in California. Use of citrus pulp as a feed has developed largely as a result of research by the Florida Experiment Station. A recent development in the citrus pulp industry is the mixing of press cake and molasses, with subsequent drying of the mixture. This gives a feed of good texture which permits the feeding of molasses without the difficulty and inconvenience of handling it in the liquid form. Dr. R. B. Becker, Dr. W. M. Neal and Dix Arnold of the experiment station say that this dried molasses-citrus pulp is more palatable than plain pulp, and should give a feeding value equal to the combined amounts of its separate ingredients..."

BBS Fur Research Current fashions are demanding more fur, despite a diminishing supply of wild animal pelts, says Frank G. Ashbrook, in charge of fur resources for the Department, and the fur industry is turning to fur-bearing animals raised in captivity. Ten years ago the number of pelts sold by fur farmers or ranchers was insignificant. This year, Mr. Ashbrook estimates, about 300,000 silver fox pelts and 200,000 mink pelts will be sold from animals raised in wire pens or cages. These skins will represent nearly 20 percent of the value of all raw furs sold in the United States, or roughly \$13,000,000. To assist fur farmers, Dr. Thora M. Plitt, formerly with the Bureau of Standards, has begun research on production of more furs of better quality. The work is cooperative between the Bureaus of Biological Survey and Animal Industry, and is under the supervision of Dr. John I. Hardy, fiber specialist of the latter Bureau. Doctor Plitt will investigate fur fiber structure and shape, pigment distribution, density, and relative distribution of underfur and guard hairs of such fur animals as silver foxes, minks, martens, and muskrats. The United States produces only about one-third of the furs it uses, hence the need for conservation and increased production of fur animals.

Plant Patents Exceed 300 More than 300 new varieties of plants, fruits, flowers and trees have been invented in the past eight years and patented by their inventors in this country. Since the passage of the plant patent law in May, 1930, close to 150 new varieties of roses have been patented, including an almost thornless rose and an almost black rose. Patents also have been granted for a golf-green grass, mushroom, peach, apple, cherry, pecan, orange, grape and fruit trees. A New York chemist, Dr. Ralph McKee, is one of the champion plant inventors with a number of patents for new varieties of fast-growing poplar trees valuable as paper pulp producers. There are also patents for carnations, freesias, lilies, dahlias, violets, avocados, strawberries, blackberries, sugar cane, a giant pansy with stems two and a half to four feet high and flowers three to four inches in diameter. Giant grapes and an orange that looks like a lemon have also been patented. (New York Times.)

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Section 1

November 10, 1938

TO SURVEY S.A. WHEAT MARKETS

Agriculture Department officials said yesterday an unofficial representative would survey the possibilities of opening new markets for surplus American wheat in South America. A survey of the market situation in Brazil, Chile and several other South American countries will be made by Frank Theis, Kansas City grain man, formerly connected with the Agriculture Department. Theis' trip will be made at a time when the government is attempting to place 100,000,000 bushels of surplus wheat into world channels under a subsidy program. Officials said that should the exporter arrange any sales the government would sell him grain at reduced prices enabling him to meet world prices. (Associated Press.)

COTTON COUNCIL

Producers, ginners, warehousemen, crushers and merchant-shippers from fifteen states will gather at Memphis on November 21 to perfect organization of a National Cotton Council to bring cotton consumption nearer the level of production through market expansion and devising of new uses, according to an announcement yesterday by Oscar Johnston of Scott, Mississippi, former director of the United States cotton pool. Objectives of the council are to increase consumption of American cotton and cottonseed products through development of world markets, expansion of domestic markets through advertising and sales promotion, research for new uses, legislation to encourage consumption and coordination of efforts of all interested groups. (Press.)

MD. FOOD & DRUG ACT

Radical changes proposed in the Maryland Food and Drug Act, to make it conform with standards established by recent federal legislation, were approved yesterday at a special meeting of the State Board of Health, says a report in the Baltimore Sun. The program, which will be submitted to the forthcoming legislature for enactment, includes: regulation and prevention of the manufacture and sale of adulterated or misbranded foods, drugs or cosmetics; definitions and standards for foods, drugs, cosmetics and devices; labeling of foods, drugs and cosmetics; adoption of regulations by the Board of Health pertaining to foods, drugs, cosmetics and devices; regulation of the sale of certain dangerously potent substances; defining of adulteration and misbranding of foods, drugs, cosmetics and devices; defining and prohibiting false advertising of foods, drugs, cosmetics and devices and providing certain exemptions and penalties.

Cotton Bale
Covering

The Farmer-Stockman (November 1) in an article on cotton bagging for bale covers, says in part: "Under this plan, worked out by the United States Department of Agriculture, buyers are going into selected one-variety communities in Texas, Oklahoma and Mississippi, buying cotton in bales of a single type, of good quality, wrapped in cotton wrapping, and then seeing to it that these bales are carefully classed, shipped, sold and delivered in Europe in good condition...Cotton from these communities is uniform in staple and of good quality. It is ginned under supervised conditions. A sample is drawn at time of ginning, the only sample to be taken from one of these bales at any time. It is classed by government cotton classers, and a certificate indicating grade, staple and weight of bale is given the farmer at the time. The bale is weighed and paid for by the marketing association or company, which collaborates with the government grader. This cotton is wrapped at the gin in cotton bagging, instead of jute, and tied with steel bands...The bale is completely covered, the bagging wrapped around the bale and the ends sewed together. The cotton is kept in good condition after leaving the gin, because it is never cut or offered to local buyers under the present destructive system of slashing and cutting the bale...This experimental effort was really the responsibility of the cotton trade, not of the government. The farmers' job is to produce good quality cotton and plenty of it. The job of the cotton trade is to handle that cotton and market it efficiently."

Milo Resists
Blight

"The Texas Experiment Station has again performed a service for southwestern farmers, especially those living in grain sorghum areas, that measured in dollars and cents is worth many times the cost of operating the station from its beginning to the present time," says Farm and Ranch (November 1). "Milo blight or milo root rot attacked fields and completely destroyed them. This disease spread rapidly throughout the sorghum-producing area until farmers lost from 5,000,000 to 10,000,000 bushels of grain per year. R. E. Karper, of the Texas Experiment Station, found a strain of milo that was resistant to the disease, and multiplied the seed for general use...Thousands of Texas farmers have not raised a good crop of milo for several years and are just now realizing that disease is responsible for the light, chaffy heads and poor crop. Alongside of such crops this year hundreds of demonstrations with the new disease resistant variety are producing fine, large heads and a good crop...Losses due to milo blight have run as high as 50 percent of the crop in some counties....Seed of the new variety has been widely distributed by the station. The certified sorghum growers have increased this new type almost to the exclusion of the old susceptible kind this year and will have approximately 1,000,000 pounds of seed for sale to milo growers this fall. After this year only the resistant milo will be registered and certified. Seeds distributed to around 600 farmers in fifty-two counties to be grown for demonstration and increase, through county agents and vocational teachers, will supply another million pounds of seed, and the Lubbock, Chillicothe, and Spur Stations are producing considerable surplus seed for further foundation seed stock."

Scientific Nature (London, October 22) reports the formation of
Film Society the London Scientific Film Society. Its formation is the
result of work of the British Association for the Advance-
ment of Science. Its aim is to reveal to the public "both the achieve-
ments of science and the potentialities of the scientific documentary film.
Such a society can do much to raise the standard of scientific accuracy
of the films shown in public cinemas, and also to increase the number of
scientific films shown."

Cooperative "In an address before the American Forestry Associa-
Forest tion, F. A. Silcox, chief of the U. S. Forest Service,
Protection stated that a national forest policy can be achieved 'by
starting at the bottom and working toward the top;' that
is, 'starting with the forest land owners themselves and working up
through the counties and states, and the federal government cooperating
all the way,'" says an editorial in the Journal of Forestry (November).
"...The Southern Idaho Timber Protective Association is probably one of
the more successful cooperative forest protective agencies in America.
Organized in 1908, this association now protects approximately 1,502,000
acres of cutover, brush, and timberland lying south of the Salmon River,
Idaho. Assessments are made on about 600 thousand acres of the total
area. One large lumber company and the State of Idaho each contribute
somewhat over 40 percent of the total protection fund expended by the
association; miscellaneous subscribers and nonmembers contribute about
13 percent of the total. During the year 1937 members and subscribers
contributed over 17 thousand dollars; nonmembers about 840 dollars, and
Clarke-McNary contributions amounted to slightly over \$4,600. The asso-
ciation the invested in camp equipment and tools, in autos and trucks, in
telephone systems, and in buildings and in lookout stations almost 50
thousand dollars. Data indicate that the Southern Idaho Timber Protective
Association has been unusually successful in controlling fire losses. Be-
tween 1914 and 1937 the total area burned was 109,155 acres, or an
average of 4,548 acres per year. This amounts to .41 percent per year
of the area protected...Timber on the association area has been subjected
to numerous insect attacks. In these cases the association appears to
have cooperated with experts from the U. S. Department of Agriculture
and to have followed out all possible control measures...Its stated
objective^{is} to 'keep Idaho forest land productive, whatever the future may
bring in ownership status.'...Certainly public regulation of private
timberland should not discourage voluntary self-regulation as exemplified
by existing timber protective associations."

Two addresses of general interest in the same Journal are: Rural
Community Planning, by Paul A. Herbert, Michigan State College; and
Recent Developments in Cooperative Opportunities Between Federal and
State Forest Agencies, by Howard Hopkins, Forest Service.

New Bean Harvester "A new type of bean harvester with soft rubber rollers has been giving a good account of itself in Yuba county, (California)," says the Pacific Rural Press (October 29).

"The rubber rollers do not crack the beans visibly, and tests show that there are no internal cracks which interfere with germination. The new harvesters were first tried out on flax, where they cut down the loss from breakage of seed sometimes as much as 20 percent. And they are particularly useful for small beans of all kinds. In Ventura county there has been some question as to whether they would be ideal for large limas, but they are being given a trial. Meanwhile, they are just right for red kidneys, and are being tried on the various types of small beans."

Hunting Laws "Several new provisions added to Pennsylvania's Game Protect Farms Code during the last legislative session should give farmers added protection against depredations and reckless hunting during the coming open seasons on game," says Pennsylvania Farmer (November 5). "One provision grants to the Game Commission the authority to revoke a hunter's license for periods up to five years for assaulting a landowner or lessee or for destroying his property. Another provision makes damage to farmers' property by hunters a violation of the game law and subjects violators to the jurisdiction of game patrol officers rather than of civil officers as heretofore. The new code provides that it is unlawful for a hunter to leave gates or bars open, break down fences, tear down fence rail posts, or injure livestock or poultry in any manner. It provides further that firearms shall not be discharged within 150 yards of any occupied building without the consent of the owner or tenant."

Chemistry Medal The Chemical Industry Medal of the Society of Chemical Industry, awarded annually for valuable application of chemical research to industry, has been presented to Dr. J. V. N. Dorr, president of the Dorr Company, Inc. The award was made to Dr. Dorr "in recognition of his inventions and subsequent world-wide introduction of apparatus and processes in many chemical, metallurgical and sanitational operations which have made possible low cost production on a large scale." (New York Times.)

New Corn Combine The farm editor of the Bloomington Pantagraph (October 2) reports the recent demonstration in Leroy, Illinois, of a combination corn picker and sheller. This new type sheller, he says, is mounted on the rear of a two-row husking machine and an elevated tank holds the shelled corn which may be trucked directly to the elevator. A representative of the manufacturing company said there are many areas of bottom land where speed is essential in getting the crop out of the field before roads are turned into mud by winter rain and thaws. There are also many farm units without crib space for the crop. Experience is expected to determine the qualities of the corn combine machine and its new method of handling the crop.

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Section 1

November 14, 1938

CANADIAN TRADE PACT

A new Canadian-American trade agreement has been concluded, it is stated by Prime Minister Mackenzie King, says an Ottawa report to the New York Times. His announcement came precisely three years after he had disclosed the negotiation of the first reciprocal trade pact with Washington. The Prime Minister is expected to go to Washington this week to sign the document which Secretary Hull will sign for the United States.

Brazil will follow the "liberal and progressive" trade program of Secretary Hull in preference to the bilateral political policies of the totalitarian states, Paulo G. Hasslocher, commercial counselor of the Brazilian Embassy, said yesterday as he indorsed the proposed Anglo-American trade agreement. The diplomat declared that signature of an Anglo-American trade treaty would constitute "the most important step for the peace of the world" in over 100 years. (Washington Post.)

CORN LOANS ANNOUNCED

Secretary Wallace announces the government will make loans on this year's corn crop at the rate of 57 cents a bushel. Loans will be made at this rate to all farmers in the commercial corn area who did not exceed their 1938 corn acreage allotments. The commercial area includes 566 counties in Illinois, Indiana, Ohio, Michigan, Wisconsin, Minnesota, South Dakota, Iowa, Nebraska, Missouri, Kansas and Kentucky. Loans will be made at 43 cents per bushel to farmers outside the commercial area who did not exceed their total soil-depleting acreage allotments. The corn loan was announced after the Federal Crop Reporting Board estimated this year's corn crop would total 2,480,958,000 bushels. (Associated Press.)

VIRGINIA OUTDOOR ADS

Regulations for enforcement of the outdoor advertising act passed by the 1938 Virginia General Assembly have been issued, says an Associated Press report, by Harold J. Neale, state director of outdoor advertising. The law goes into effect January 1. Any person or concern engaged in the business of outdoor advertising must obtain a license before January 1. The license fee is \$25. If the licensee has his principal place of business outside the state or if the concern is incorporated outside the state, it will be necessary to furnish \$1,000 bond. Signs on farms relating to farm produce furnished by the farm are excepted.

Chronica Botanica E. N. Munns, Forest Service, in a letter in the Journal of Forestry (November) reports that Chronica Botanica, issued as an annual for the past three years, is now being published as an international bimonthly, Chronica Botanica, International Plant Science Newsmagazine. "Its field of work," he says, "includes forestry, horticulture, botany, and agronomy...Chronica Botanica is also sponsoring a new series of plant science books...The editor of Chronica Botanica is Dr. Frans Verdoorn of Leiden, Holland...Five members of the advisory editorship are Americans."

Medical Aid for Farmers A letter in Social Frontier (November) describes briefly a program of low-cost medical care for Canadian farmers. Started in the farm community of Holdfast, Saskatchewan, the idea, it says, "has largely revolutionized the system of health and medical care over a substantial part of the Western Canadian prairies, where doctors were ordinarily called in only in extreme emergency and were ill compensated for their services. New laws were enacted in Saskatchewan and Manitoba permitting the application of taxes to this purpose. According to the latest statistics there were 102 of the 302 municipalities in Saskatchewan with a full-time municipal doctor, while many municipalities in Manitoba and Alberta have made contracts with physicians and the movement is steadily spreading. Alike from the standpoints of the agricultural residents and the doctors the scheme has worked out to fairly uniform satisfaction...In the little agricultural community where the plan was born, the doctor is now paid \$4,000 a year by the municipality and all his services are free except that in maternity cases a fee of \$7.00 is charged. The patient pays for his medicine and if a serious case requires a surgeon, specialist, nurse, or hospital treatment these have to be paid for on the usual private basis. These are the usual terms prevailing throughout the various municipalities of Western Canada which have adopted the plan, for which the average farmer is taxed \$11.50 per year."

Country Estate Country Life (November) contains "Our Soil--or Our Soil Erosion Life" by P. G. Cross. The article is illustrated by photographs from the Department. An editors' note, headed "A Country Estate Obligation" says in part: "The value (of erosion control measures) is being proved on demonstration projects throughout the country by cooperating farmers who, while enjoying their advantages, are also passing them on to others. Therein lies the opportunity and obligation of the country estate owner. His land is no more immune to erosion than the poorest farm--if wrongly managed. But because it is owned, presumably, by an educated, progressive, far-sighted, public-minded individual it is--or should be--an object lesson in the campaign for soil salvation; a standard bearer in the conservation crusade that so vitally affects us all."

Beautifying "Roadside improvement and beautification has become
Roadsides a national problem," says Robert C. Helgeson in National
 Seedsman (November). "This fact is attested to in federal
specifications for road construction grants to the states which allot a
portion of appropriations for this purpose; and in the work of such pro-
gressive commonwealths as Michigan, Connecticut and Massachusetts, and
others, where citizens and visitors enjoy the beauty which has been
created for them....A few state highway departments have landscape
architect directors to supervise roadside improvement...In 1928 national
legislation was enacted which appropriated a sum to landscape 'parkways
or roadsides on a reasonably extensive mileage.' Since 1928 the Bureau
of Roads has expanded its activities to include research and investiga-
tion aimed to produce information for state and county agents and con-
struction engineers. This program has produced much data, and acts as a
clearing house for ideas which has been invaluable to the nation.....
Fortunately, the government is taking a long range view of the subject.
It is hoped that 'landscaping will have a regular place in highway con-
struction of the future.'..."

Australian "The first number of the Australian Journal of
Journal Science has recently been issued," says Nature (London,
 October 22). "This journal is published by the Australian
National Research Council under the auspices of the Australian and New
Zealand Association for the Advancement of Science, and six numbers will
appear each year...Australian Science Abstracts are in future to be in-
corporated in the Australian Journal of Science as a supplement..."

Basin Lister Most unusual of all the furrows plowed in McLean
Successful county (Illinois) this fall are believed to be those made
 by the "basin lister," a new machine used in the Leroy
Soil Conservation Service district, says a report in Bloomington Panta-
graph (October 31). The ground is left in great ridges, two feet apart.
The deep furrows are dammed up every 8 or 10 feet by a special attach-
ment to the big plow. This leaves the surface one great series of
basins to catch and hold water, to prevent runoff even during the
heaviest rainfall. By making the water soak into the surface, it is
robbed of its power to wash gullies or carry away the top layer, the
most fertile soil...A dozen men have used the new machine, provided by
the Conservation Service. Several have reported highly in its favor for
use on rolling land where erosion is a problem. The machine was designed
to conserve moisture in areas where drought is common. It is proving
quite effective in preventing runoff and erosion where there is abundant
rainfall, however. D. O. Carter, assistant agronomist of the Soil Con-
servation Service, explained that this method of controlling erosion is
effective on those soil types where the subsoil will absorb the moisture.

International Bird Treaties Bob Bush, of the editorial staff of Field & Stream, says in the December issue: "American sportsmen who take pertinent interest in the waterfowl situation in their own country and Canada are apt to forget that their efforts are in reality directed towards solving only two-thirds of the wildfowl problem, and that once beyond our borders countless millions of our waterfowl, shore birds and song birds enter countries where game laws are unheard of, and where the 'open season' extends without a let-up. The following quotation is from the latest pamphlet of the International Committee for Bird Preservation: 'Millions of individuals of 421 kinds of our United States birds depart in autumn to regions where the word "conservation" has little meaning. Forty-five kinds of shore birds receive no protection after leaving our borders. Seven species of geese and twenty-one varieties of ducks wing their way to lands where their lives are in constant jeopardy.' Here is food for thought, and more or less of a challenge. To be sure, the migratory bird treaty with Mexico has helped greatly, and there are scattered refuges in some of the Pan-American countries. But more treaties are needed, and it would appear that--with the assistance of such agencies as the International Committee--we might direct our attention to the migratory bird problem as a three-way proposition."

Fur Farming Research The Fur & Market Journal (November) says editorially: "Little has been done up to now in the way of scientifically solving some of the major problems of the fur industry... This year, however, a start has been made to tackle some of these problems. Research has been started in the fields of nutrition, bacteriology, parasitology, endocrinology and virus diseases in the Wisconsin College of Agriculture. Work on fox and mink distemper, aided by funds from the American National Fox and Fur Breeders Association, has been progressing rapidly at the Harvard Medical School. Research is being carried on at the Oregon College of Agriculture and it is hoped that other land grant colleges throughout the northern tier of states will have research in fur farming problems under way before long... We urge every fur farmer, large or small, to give his wholehearted support to these research projects."

The Department has recently started research on fur farming problems, under the Bureau of Biological Survey (Daily Digest, November 9).

Devices Kill Plant Enemies Two new devices developed at Rutgers University (N.J.) are proving effective in the endless war against insects and other plant enemies, says a Science Service report. One is an electric soil pasteurizer, invented by Prof. W. C. Krueger of the New Jersey College of Agriculture. It thrusts wedge-shaped metal strips into the soil in the flats in which plants are started. The current generates heat, which rids the soil of microorganisms, insects, parasitic worms, weed seeds and other harmful life forms. A six to eight minute treatment suffices. The second apparatus, known as the hot box, is intended to rid flowering plants of the cyclamen mite. It is a solidly built chamber with a tight door, in which the temperature can be raised to a point where the mites are killed. The hot box is the invention of Dr. Clyde C. Hamilton of the New Jersey Experiment Station.

DAILY DIGEST

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Vol. LXXI, No. 31

Section 1

November 15, 1938

U.S. HEALTH IMPROVEMENT

The health of the nation, judged on the basis of mortality rate, was better this year than at any time in the past decade except 1933, when a record was established, according to a U. S. Public Health Service report yesterday. On this basis, the report said, 1938 health conditions "have been remarkably good and continue to reflect a period of great achievement in public health." The death rate for the first forty-one weeks of the year, computed on an annual basis, was 11 per 1,000 of population, compared with 10.8 for the comparable period in 1933. (Press.)

TVA POWER CHALLENGE

"The Federal Government was accused before Supreme Court yesterday of attempting unconstitutionally to set up a government power monopoly in the Tennessee River Valley, and thereby to drive privately owned electric utilities completely from that vast region," reports Turner Catledge in the New York Times. "The charge came from Raymond T. Jackson of Cleveland and John C. Weadock of New York, counsel for fifteen power companies, who asked the Supreme Court to invalidate a decision of the United States Court for the Eastern District of Tennessee and enjoin the Tennessee Valley Authority from further prosecution of its power program insofar as it competes with private enterprise..."

LIGHT-WEIGHT FREIGHT CARS

To show that the principle of light-weight construction in use for railway passenger equipment may be extended to freight cars, the American Car and Foundry Company has on exhibition today and tomorrow (in New York City) a box car and refrigerator car of advanced design. The box car is of welded steel and weighs fifty tons. The refrigerator car is of forty tons and is welded and riveted. High-tensile, corrosion-resisting steel has been used to the greatest extent possible in the construction. Each car weighs about four tons less than those of standard design. In the case of the refrigerator car this factor is helped by a new and efficient form of ventilation. The refrigerator cars may be used with dry or ordinary ice. (New York Times.)

BUTTER STORAGE

The Bureau of Agricultural Economics reported yesterday creamery butter in storage November totaled 193,751,000 pounds, a decrease of 16,952,000 pounds during October. The November 1 figure was 95,127,000 pounds larger than that for November 1 last year and 74,603,000 pounds greater than the 5-year average. (Associated Press.)

"Artificial" F. Hanley, School of Agriculture, Cambridge (England)
Farm Manure in the Journal of the Ministry of Agriculture (November)
says in part: "The possibility of converting straw into
'artificial' farmyard manure on the field itself is of interest on
mechanized corn-growing farms. There is little doubt that the rotted
straw in farmyard manure is a very valuable constituent and its effect
on the soil may be just as important as that of the excreta with which
it is mixed, provided it has been properly rotted. It is not so rich in
the common elements of plant food as is the excreta but, on decomposition,
it forms the humus which is so important in maintaining soil structure.
Unrotted straw has long been known to depress the yield of crops when
ploughed into the soil by itself for, in a dry season, the straw may not
decompose, in which case it merely accentuates the effects of the moisture
deficiency by making the soil more open, while if conditions are favour-
able for the decomposition of the straw, the soil is robbed of its sup-
plies of available nitrogen by the organisms that decompose the straw
since cereal straw itself does not contain sufficient nitrogen to meet
the requirements of the rotting organisms. The addition of artificial
fertilizers with the straw at the time of ploughing-in, however, seems
to overcome some of these disadvantages and the preliminary results of
long-term field experiments at Rothamsted suggest that this method of
dealing with the problem is worthy of full investigation. As with all
experiments on the use of organic materials as compared with inorganic
fertilizers, however, a long period must elapse before the results can
be judged."

Civil Service The Civil Service Commission announces the following
Examinations examinations: (unassembled) Autogiro Pilot, \$3200, Bureau
of Entomology and Plant Quarantine, Bloomfield, New Jersey;
(assembled) Senior Biological Aid (Injurious Mammal Control), \$2000,
Bureau of Biological Survey, Applications must be on file not later
than the following dates--(a) December 12, if received from States other
than those named in (b), (b) December 15, if received from Arizona,
California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah,
Washington, Wyoming.

Scientific America, with only 30,000 research scientists as com-
Workers pared with Germany's 70,000 and Soviet Russia's 100,000,
needs more scientific workers to assure her future, Clarence
Francis, president of the General Foods Corporation, told the Ohio State
University Research Foundation recently. "It is my conviction that we
are on the threshold of new frontiers," he declared in urging upon his
audience the necessity for increased scientific study of new ways of doing
things and of new products. "If the public, business, government, labor
and the farmers will get solidly behind our scientists...we'll soon dis-
cover so many ways to improve our country and to get more of the good
things of life to more people that new jobs will be created until un-
employment is just about wiped out," he argued. "The barriers that pre-
vent us from being better fed, clothed, housed and more generally em-
ployed...center around man's dislike for change. But there are many
signs this inertia is yielding." (Science Service.)

Bridge Tree A San Francisco report in American City (November)
Planting says 900 trees and plants of 26 coniferous varieties--
 in reality a miniature forest of evergreens, costing
\$90,000--have been planted at the San Francisco approach to the
\$77,000,000 San Francisco-Oakland Bay Bridge to cover the bare, raw
background of the approach as well as to give an out-of-doors look to
the gateway to the city. Tall cypress and redwood, bright green English
holly and stout oak trees were transplanted to make a scenic background
for the world's greatest bridge. A total of 121,000 square feet of the
main entrance to the bridge was planted with grass, shrubs and trees.
State Arboriculturist H.D.Byers designed the landscaping scheme, with
64,000 square feet planted to lawn of seaside bent-grass, the remainder
devoted to coniferous plants and flowers.

Fifty Years Under the title, "The Romance of Fifty Years With
With Plants Plants," Parks and Recreation (November) reviews "The
 World Was My Garden" by David Fairchild, "well known over
the world as a botanist and agricultural explorer of great accomplish-
ments and for over twenty years head of the division of Foreign Plant
Exploration and Introduction of the U. S. Department of Agriculture...
When Mr. Fairchild, a young man of twenty, entered the service of the
Government in 1889 as one of the staff of the Section of Plant Pathology
he became associated with a small group of other young men whose tastes
were similar and whose lives have also been dedicated to serious plant
research. Their names, particularly those of Walter T. Swingle, Beverly
T. Galloway, P. H. Dorsett and Merton B. Waite, appear frequently in the
pages of Mr. Fairchild's book and this country owes a deep debt of
gratitude to this group for their contributions to horticulture and agri-
culture. Later there appear the names of men more familiar to our readers--
Frank N. Meyer, Peter Bisset, E. H. (Chinese) Wilson, John McLaren, and
others. To all these Mr. Fairchild gives wholehearted acknowledgement
for their achievements and their help in his own work...The illustrations,
most of which were by Mr. Fairchild, are in themselves an education. The
work seems to us to be one of the best books published in recent years."

Einstein Heads Prof. Albert Einstein will head the Advisory Committee
Fair Science on Science at the New York World's Fair, it is announced
 by Grover Whalen, President of the Fair. The committee
will cooperate with fair officials in preparing a central exhibit of
science. "In this exhibit the committee will show the secret of suc-
cess of science," Dr. Gerald Wendt, director of science at the fair,
declared. "Science has been so successful in its attack on nature and
in solving the great problems of the universe because it has used always
the precise experimental method of testing its ideas and of proving its
conclusions..." (Science Service.)

Electricity Saves Money O. J. Hurd, of the Tennessee Valley Authority, writing in *Agricultural Engineering* (November) on farm electrification in the Tennessee Valley, says in part: "It is interesting to observe how the southern farmers of just ordinary means are using electric equipment to make electricity 'pay its way' and increase farm incomes. In North Georgia, J. S. Christian, a dairy farmer with some 25 cows, without electricity made a net farm income in 1936 of \$975. When he first received electric service his primary investment for wiring, lighting, and home conveniences was \$342. Electricity made it possible to install refrigeration and other equipment to enter the Grade A bottled milk business. Farm electric equipment cost \$927; a truck and other supplies, \$1,075. This made a total of \$2,344 invested in farm and home improvements. However, his net income for 1937 was \$2,364, or an increase of \$1,389 over 1936. This represents a return of nearly 60 percent on his total investment in farm and home improvements. A neighboring farmer, Henry Calloway, a truck grower, installed insect traps on three acres of tomatoes. The lighted patch yielded over 90 percent worm free tomatoes. The crop on the balance of his 15 acres was almost a complete failure due to an infection of corn ear worms. Electric sweet-potato curing and storage have proven a profitable investment for G. C. Harris of Ranger, Georgia. Mr. Harris has a 600-bushel house and sold all his crop at 15 cents per bushel higher than the 'going price,' and he had enough calls to have doubled the sales. D. M. Babbs of Corinth, Mississippi, reports that he installed a 6x48-ft. electric hot-bed and seeded it to tomatoes in one day. His former method of preparing manure-heated beds required two full days of labor and five tons of fertilizer. In addition to less net cost by using electricity, he produced 30 percent more plants with the same size bed."

Milling and Baking Prizes For the first time in its history the International Grain Show, to be held at Chicago November 26 to December 3, will have tests made of the milling and baking qualities as well as the general physical appearance of wheat samples. The selected samples will be milled at the college at Manhattan, Kansas, and the flour will be baked by a commercial laboratory at Chicago. Bushel samples of hard red spring and hard red winter wheat have been requested from several states. (*Grain & Feed Journals*, November 9.)

Dry Milk Standards What is said to be the first time that standards have ever been prescribed by a governmental agency for dry milk were established recently when the Wisconsin Department of Agriculture and Markets issued regulations governing that product, says a Madison report in the *Dairy Record* (November 2). The new regulations apply to dried and powdered whole milk, skimmilk and buttermilk. The standards will limit the butterfat content, moisture content and bacterial count per cubic centimeter in dry milk produced for human consumption. Packaging requirements are also prescribed. The regulations become effective December 1.

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Section 1

November 16, 1938

1939 AAA PROGRAM

American farmers must plant no more than 275,000,000 of their 365,000,000 cultivated acres to cotton, corn, wheat, tobacco, rice and other soil-depleting crops next year if they are to obtain \$712,000,000 in subsidy payments authorized by Congress. Secretary Wallace established this national planting goal yesterday for the 1939 program under the agricultural adjustment act, designed to prevent accumulation of crop surpluses. This year's goal was about 282,500,000 acres. The Secretary said 275,000,000 acres should produce sufficient crops to supply the nation's domestic requirements and "all possible export markets" and provide an adequate reserve. The 1939 goal will be divided among various crops and then apportioned to states and allotted to farmers. Growers may comply with, or ignore, their allotments, but in order to be eligible for maximum subsidy payments they must comply. In addition, they must plant land diverted from soil-depleting crops to those classed as soil-building, such as clover, alfalfa, other legumes and pasture crops. (Associated Press.)

LABOR AND FARMERS

Secretary Wallace asserted last night that unless the New Deal could accomplish the task of ending unemployment some form of industrial fascism would "almost certainly develop." He addressed the Fifth National Conference on State Labor Legislation at which Secretary Perkins presided. Mr. Wallace said that questions put to him in Michigan recently showed clearly that the farmers and small-town folk of the state did not understand or sympathize with what the labor groups of this country were trying to do. "If workers and farmers are not able to develop an increasing confidence in each other in the years immediately ahead," he said, "the moderate and progressive elements will lose control of national policies. Under the pressure of world events a new conservative majority would almost certainly develop some form of industrial fascism..." (New York Times.)

ARGENTINE WHEAT PRICE PEGGED

President Roberto M. Ortiz by decree yesterday pegged the price of Argentine wheat at seven pesos a hundred kilos, the equivalent of 21 cents a bushel, says an Associated Press report from Buenos Aires. Planters may sell either to exporting firms willing to pay the pegged price or more, or may dispose of their crops to a national grain board which Ortiz created in another decree.

Insect
Warfare

"In a publication called 'Men and Methods in Research,' gotten out by the Ohio State University Research Foundation, is a dramatic story of the continuous battle being waged by science against destructive insects," says T. A. McNeal in Kansas Farmer (November 5). "It is really the greatest scientific battle of the ages. Of course, the battle is not being waged entirely, not even principally, in the laboratories of the scientists. Such practical weapons as traps, swatters, fire, plowing, flooding, electricity, sprays and dusts that destroy the insect pests by contact with them or kill them by reason of being swallowed, are being used...It is not certain even yet that man, through the help of scientists, will win. It is certain, however, that if the battle against the insects had not been waged, by this time both horticulture and agriculture would be in an exceedingly bad way. I doubt whether there would be a single successful orchard either of the citrus fruits or a peach or apple or pear orchard still surviving in the United States. Even grain crops, while not in quite as bad condition as the orchards, would have been badly damaged. The world by this time would be on the verge of starvation, and triumph of the insects would be nearly if not entirely complete."

Nebraska
Wildlife

The Nebraska Farmer (November 5) in an item on a cooperative sportsman-farmer program, says: "Working with the Soil Conservation Service and the North Dakota Wildlife Federation, farmers have posted signs against hunting or trapping 'without permission' of the owner or operator. The signs, carrying the farmers' names, explain that the land--nearly 20,000 acres of it in all--is under wildlife management practices. It has been observed this fall that upland game birds are increasing on a large percentage of erosion-control cooperating farms in the state, and that wild ducks had nested this year at virtually all the reservoirs developed under the program. Rows of corn planted at intervals through summer fallow and potato fields, particularly in the Park River area, have attracted many game birds during the winter months of the past two seasons."

Commodity
Counselors

"Following a suggestion of the Commodity Exchange Administration, the New York Cotton Exchange has adopted a new rule for strict supervision and regulation of 'commodity counselors'," reports Heinz Luedicke in the New York Journal of Commerce (November 9). "Other commodity exchanges under the supervision of the Commodity Exchange Administration are expected to follow suit with similar rules soon. The new rule aims primarily at improvement in accounting standards of commodity counselors. A few of the less scrupulous commodity counselors have been accused of following the practice of notifying customers only of the closing of profitable transactions, while unprofitable transactions were kept open as long as possible. This will be prohibited in the future..."

Canadian Freight Rates Practical revision of Canadian railroads' freight rate structure has become effective. The changes in the rate schedules will permit the railroads more latitude in meeting truck competition. Canadian railways, under the revised Transport Act, will be allowed to establish so-called "agreed charges" which permit a carrier to contract with a shipper at special rates for the movement of the shipper's total annual business. Heretofore, the railroads were bound by rates applicable to all shippers. The principle of the "agreed charge" has been in effect in Great Britain and Australia for several years, but this will be the first time such a system has been used on this continent. In the United States, the railroad committee of the Investment Bankers Association in its recent report suggested the use of "agreed charges" in that country as one solution of United States carriers' difficulties in meeting competition from other forms of transportation. The Canadian Transport Board has the right reserved to regulate the rates, and also to prohibit discrimination between various shippers. Shippers also will have the right to apply for the same rate received by a competitor if they can establish the similarity of conditions. The rate agreed upon by a shipper and a carrier are to remain in effect for one year, and it is possible at the end of that period to have new negotiations looking to a change in a particular rate. In the case of water-borne traffic, bulk cargoes such as grain, coal, sand and gravel are excluded from the "agreed charges" provision. (Wall Street Journal, November 15.)

Sugar Beet Business Week (November 12) in a short article on
Machines sugar beet machines, says that the industry is fighting to keep wages below the point where sugar prices rise higher than consumers will pay, and that mechanization is the answer. "The \$100,000 appropriated by the United States Beet Sugar Association for mechanization experiments in Davis, California, and Fort Collins, Colorado, is beginning to bring results. The money is provided jointly by the two states, the Bureau of Agricultural Engineering of the United States Department of Agriculture, and a dozen of the largest beet sugar manufacturers. Two types of seed-planting devices are undergoing final tests, one in Davis and the other at Fort Collins...The Davis machine, designed by S.W. McBirney of the Department of Agriculture, is an adjustable four- or six-row chain-drop unit which will space seeds two inches apart in a row. The Fort Collins device, designed by E. M. Mervine (also of the Department of Agriculture), has a cell-drop unit. There are several types of harvesting machines in development operating on one of two principles: (1) topping the beets before they are plowed out of the ground; (2) topping them after they have been pulled...In the light of this season's progress, beet sugar manufacturers expect handling of the 1940 crop to be approximately in accord with their mechanization objectives."

Xmas Tree

"The Northland Yuletide Greens Cooperative is the latest Wisconsin cooperative enterprise, formed in advance of the Christmas holiday rush by the farmers of Oneida and Vilas counties," says an article in the Wisconsin Agriculturist and Farmer (November 5). "Patrons of this cooperative may purchase trees in a limited number of towns for the first year. If it succeeds, a larger force will be added and extensive sales begun in other towns next year... Uniform standards for cutting of trees and greens, under good forestry practice, and the use of a cooperative label attached to the material, are contemplated. This is the first effort of its kind in Wisconsin and if well managed should mean satisfaction to producers and consumers as well as better maintenance of evergreens in northern regions."

**State Food-
Drug Laws**

Business Week (November 12) in an article on state food, drug and cosmetic laws, says that in January over 40 state legislatures are going to meet and "nearly every one of them is going to have a food and drug act of its own to consider (in addition to the new federal act)...Up to the present, manufacturers have only had a taste of what tough state food and drug regulation was like--in Louisiana and Maine, which have registration laws for drugs and cosmetics, and, more particularly, in North Dakota, an early trail-blazer in the wilderness of food and drug legislation, which still has one of the toughest acts on record. Ever since that act was passed, in July, 1937, North Dakota's vigorous, crusading Food and Drug Commissioner Culver S. Ladd has been lustily demanding compliance from manufacturers, big and small. Though numerous manufacturers have been trying to hold off until the federal act takes effect before they begin to make statements of active ingredients on their labels, or otherwise comply with the North Dakota act's provisions, Ladd, to prove his state means business, has been stopping the sale of all non-complying manufacturers' products shipped into the state since last July. After June 25, 1939, North Dakota can expect 100% compliance from manufacturers, for the federal act covers practically all of the North Dakota act's provisions...The state act still contains one important provision that doesn't appear in the federal act; the state food commissioner is authorized to publish the reports of his analyses, inspections, and research for the information of the public. There are other states that test products and report on these tests (using brand names) to consumers--Alabama, Connecticut, Indiana, Maine, and New Hampshire. But none does a job as comprehensive as that of North Dakota..."

**Blister Rust
Organization**

A Spokane report in American Lumberman (November 5) announces a new organization to help fight blister rust, the Western Conference for White Pine Blister Rust Control. This organization will seek to coordinate efforts in the five states of Montana, Idaho, Washington, Oregon and California, looking toward control of the disease in the white pine forests of those states. Headquarters will be in Spokane.

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Vol. LXXI, No. 33

Section 1

November 17, 1938

EXPORT BALANCE

A report on the balance of international payments for the first half of 1938, issued yesterday by the Department of Commerce, showed for that period a greater increase in the merchandise export balance, compared with 1937, than for any other year since 1921. The trend changed a merchandise import balance of \$147,000,000 for the first half of 1937 into an export balance of \$631,000,000 for the first half of this year, according to the report. As a result, the study showed for the first six months of 1938 "excess receipts of \$602,000,000 from all trade and service transactions, including interest and dividends." (New York Times.)

TRANSPORTATION DIVISION URGED

A new federal agency to be known as the Department of Transportation was advocated yesterday by Walter M.W. Splawn, chairman of the Interstate Commerce Commission, before the National Association of Railroad and Utility Commissioners. The new department, Splawn said, would be used to work out economies and ward off ruin to many operators of superfluous trucks, barges, ships and airplanes "and disaster to railroads." "We find today the means of transportation overextended and built far ahead of traffic," Splawn declared. "We see all about us financial failure of transportation companies, cut-throat competition, rate wars and the giving of rebates through one legal device or another." (Associated Press.)

BILLBOARD LEGISLATION

Predicting that 25,000 miles of new four-lane highways would have to be built within the next twenty-five years to accommodate the automobile traffic of the nation, H. S. Fairbanks, chief of the Division of Information, Bureau of Public Roads, yesterday told the National Roadside Council that now is the time to start working for legislation that will keep those roads free from disfiguring billboards and "hot-dog" stands. Mr. Fairbanks said the Federal Government was in sympathy with the aims of the various organizations now working for the elimination of blatant advertising billboards and for beautification of highways. He indicated, however, that it could do little with the problem, inasmuch as it was one for the individual states to solve. (New York Times.)

POPULATION

The population of the United States as of July 1 was estimated yesterday at 130,215,000 in preliminary figures made public by the Bureau of the Census. This total indicated an increase of 0.7 percent over July 1, 1937, but emphasized a decline in the rate of increase which is expected to have far-reaching effects on American economy in future years. (New York Times.)

Centers of
Population
and Trade

This nation is in the midst of a new industrial revolution which probably will bring a broad decentralization of population and trade, new types of communities and higher valuations for property in small towns and rural districts, Gustavus W. Dyer, Professor of Economics at Vanderbilt University, predicted last week to the National Association of Real Estate Boards. The luxuries and economic advances which up to a generation ago were reserved largely for the centers of population now were available to all communities and the changes brought by gasoline and electricity had eliminated the former isolation of rural areas, he declared. "The steam revolution centralized all life and industry into a group of major centers, but the new revolution is driving industry back to the villages and rural sections," he said. "Population will follow the industries, and outlying property values will increase while values in the congested centers will tend to decline..." L.E. Gilbert, of the Northwestern Mortgage Company, asserted that in farm districts broad replanning operations were beginning to show favorable results. "The land-rehabilitation policies of the Department of Agriculture and the land-utilization policies of our government have made outstanding progress in solving the problem of land improvement in the Northwest and a large part of the Southwest," he stated. "They have accomplished much already in building up the morale and conserving and rehabilitating both men and acreage." (New York Times, November 12.)

"100-Acre
Tractor"

"'Hundred Acre Tractor' is the name we give to the new type of experimental tractor developed in the agricultural engineering laboratory at Michigan State College," says H. H. Musselman, head of the agricultural engineering department, in Agricultural Leaders' Digest (November). "At our last farmers week the machine took the eye of many farmers interested in lightweight farm power that can pull a 14-inch plow bottom, cultivate row crops and draw wagons or trailers over fields or paved highways. Another purpose was to demonstrate suitable power that could be manufactured to sell for \$500 or less... This machine is capable of doing the work of four horses. It can travel down the road at 20 miles an hour... We are trying to demonstrate some ideas of low-cost but efficient tractor construction which would supply suitable power for the average Michigan farm. The engine is an efficient but small automobile type power plant. A friction drive is being used experimentally to permit high clearance and yet give small diameter to the rear wheels to cut the cost of rear wheel tires. Complete field tests are being conducted to determine worth of the new ideas in tractor construction."

U.S.D.A. Aids

"To better meet problems of citrus canners in the Citrus Canners Lower Rio Grande Valley of Texas, a new federal laboratory has been established at Weslaco," says American Fruit Grower (November). "Since the processing of citrus has boomed to a great volume in this area during recent years, there has been a need for experimentation and research such as is being provided by the laboratory. Established on the Hidalgo County Substation farm of the Texas Agricultural

U.S.D.A. Aids Citrus Cannery (continued)

Experiment Station in 1932, the laboratory has been known as the U.S. Citrus Products Station. Its new name is U.S. Fruit and Vegetable Products Laboratory. Probably best known accomplishment of this relatively young institution is improvement in grapefruit juice canning. Through research carried on by staff members under the direction of J. L. Heid, Bureau of Chemistry and Soils, old methods of grapefruit juice canning which often left the canned juice scorched and bitter have been replaced by improved methods for reaming, screening, deaerating, flash pasteurizing, and quick cooling."

Long-RangeResearch

Research for the American farmer and engineering research, mainly for national defense, absorb over \$43,000,000 or 75 percent of all the \$57,700,000 research expenditures of the federal government, says a Science Service copyright report. This analysis was made by Dr. Lyman J. Briggs, director of the National Bureau of Standards. The distribution of research funds, exclusive of statistical agencies and those engaged in social sciences, looks like this: Engineering research, mainly national defense, 36% -- \$21,000,000; Surveys and mapping, 16% -- \$9,400,000; Physical sciences, 4% -- \$2,200,000; Natural sciences, mainly agricultural research, 39% -- \$22,400,000; Public health, 5% -- \$2,700,000. The federal government, Dr. Briggs explained, confines its research activities almost exclusively to subjects having an immediate practical interest. It has not undertaken long-range research, except in the field of agriculture. Basic research in this country has in the main been carried out by our colleges and universities. "New industries, which create additional employment, grow out of discoveries made in the laboratory," Dr. Briggs emphasized. "To provide more employment we need new facts, new discoveries, upon which new industries may be based... Discoveries of this kind are not made overnight, but they will continue to be made, as they have been made in the past, if facilities and support are provided for basic research. A steady flow of new discoveries would stabilize economic conditions. Coordinated basic research, directed along lines that may lead to new industries, should be supported by the federal government as long-term insurance against unemployment and economic stagnation."

ImprovedTrapping

"Owing to the strong tide of public sentiment against cruel trapping," says Kentucky Grower and Stockman (November), "inventors have been busy with devices which should remove the cruelty of the steel trap. Of the several kinds now available, the chain-loop leghold invented by Dr. Vernon Bailey, retired chief naturalist of the Biological Survey, seems simplest and most practical. A flexible chain-loop is thrown up about the leg and held there by an ingenious spring, which tightens the loop with pulling and yet does not injure. Animals caught in the steel-trap are maimed and ruined for life. From the chain-loop, unwanted animals, too young furbearers, etc., can be liberated unhurt, thus greatly conserving the fur supply. The chain-loop is put out by one of the principal steel-trap firms of the country, and can be gotten through dealers from the larger wholesale hardware companies..."

Fertilizer Survey The Fertilizer Review (September-October) commenting editorially on the development of better fertilizers and better methods of application, by the U. S. Department of Agriculture, experiment stations and fertilizer industry, says: "All of these agencies cooperate in educating the farmer. In order that the research may be most efficiently directed and most productive, and that the millions of dollars expended for research may be spent most effectively, it is essential that there be abundant information concerning current practices, and farmers' knowledge and views about fertilizer. The National Fertilizer Association is now engaged in making a comprehensive survey, discussed elsewhere in this issue of The Fertilizer Review."

"LCL" Freight Business The Interstate Commerce Commission recommends that the nation's railroads take steps to handle by themselves or through wholly owned subsidiaries, the more than \$100,000,000 of less-carload freight business now being handled by freight forwarding companies. Asserting that this traffic as combined and distributed by forwarding agencies was more profitable than rail "LCL" operations generally, the commission said there was no persuasive reason why the railroads should not by appropriate cooperative effort afford the same or better service and thus retain for themselves the entire profits. The recommendation was contained in a report growing out of the commission's investigation of forwarding operations, in which the railroads were found to be engaging in widespread violations of the law in their relations with forwarders. (Wall Street Journal, November 16.)

Hybridization Experiments "Starting a few years back with the crossing of pure strains of field corn to get higher yields and other desirable characteristics, hybridization work has been extended to include a number of other farm crops," says Colin Kennedy in Country Gentleman (December). "Hybrid strains of alfalfa, sweet clover, grasses and popcorn are being tested and developed at several state experiment stations...Work in Nebraska in breeding hybrid alfalfa has uncovered several new strains of considerable promise. Hay yields of several of these new varieties the past year resulted in considerably heavier tonnages than from regular, open-pollinated strains. But the Nebraska work is being carried out primarily to discover varieties resistant to bacterial wilt...Attention also is being directed toward finding alfalfa strains that are heavy seed yielders...Of considerable promise is a hybrid alfalfa developed from a creeping alfalfa from Turkey and domestic varieties...Development of a really 'sweet' sweet clover is the goal of Nebraska plant breeders. This work is aimed at removing at least part of the bitter substance in sweet clover, the coumarin which is responsible for the sweet-clover bleeding disease in livestock. Another goal is the development of a late-maturing hybrid which will extend the pasture season through the summer when other pastures are brown. Popcorn hybridization work at Iowa and Minnesota has already produced strains with good commercial possibilities. A considerable acreage of the new hybrid popcorn was husked this year, particularly in Minnesota. In addition to higher per acre yields the hybrid popcorn also pops out a greater volume."

DAILY DIGEST

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Section 1

November 18, 1938

FARM PRODUCTS IN TRADE PACTS

Agriculture Department experts said last night the British and Canadian trade agreements should benefit American agriculture but not to the extent of greatly relieving existing surpluses, according to an Associated Press report. Major advantages gained from the British, they said, would flow to producers of corn, hogs, rice, apples and citrus fruits. On the other hand, southern producers of cotton and tobacco, groups confronted with the most serious problem of excessive surpluses, gained no advantages not already possessed. Although State Department officials emphasized that the British duty on American wheat, equivalent to 6 cents a bushel, was removed, other government experts said the use of export dumping programs by Canada, Argentina and several other major wheat-producing countries tended to lessen the importance of this concession. Generally speaking, the agreement with Canada granted that country concessions on such important farm commodities as cattle and dairy products in return for Canadian concessions on American manufactured products. Agriculture Department officials expressed belief that the Canadian treaty would result in indirect benefits to American agriculture. They said increased Canadian purchases of American industrial goods would increase American payrolls and thereby give American labor the means of buying larger quantities of farm products.

FOOD & DRUG CONFERENCE

More than 150 representatives of the food and drug industries met yesterday with officials of the Department of Agriculture to make preliminary studies of projected regulations under the new food and drug act which will become operative next June. This conference, called by the Department of Agriculture as an effort to avoid misunderstandings or hardships on the industry, dealt primarily with what officials termed the "working vocabulary" of regulations. W. G. Campbell, chief of the Food and Drug Administration, invited spokesmen for the industry to speak frankly about either suggestions for administering the act or fears they might entertain with regard to possibilities for unfairness latent in it. (New York Times.)

RURAL SALES

Daily average sales of general merchandise in small towns and rural areas for October were higher than for any previous month of 1938 but about 12 percent below October 1937, the Commerce Department reports. (Press.)

Federal Wildlife Protection The Baltimore Evening Sun (November 15) commenting editorially on the opening of the Maryland hunting season, says: "Now it is perfectly legal for duck hunters to shoot ducks. They can even shoot a few canvasback, red-head, bufflehead or ruddy ducks, which hitherto have been totally forbidden. The season has been increased by fifteen days. Not in many years have ducks (and geese, too) been so plentiful in the Susquehanna and Chesapeake regions. All this is exceedingly pleasant news, not only to sportsmen and gourmets but also to a great many other people who had feared, and quite rightly, that the wild waterfowl were headed toward swift extinction. This marked change has come about within five years. In 1933 the chief of the Biological Survey was extremely pessimistic. Indeed, he said at that time that 'it seemed useless to keep up the struggle to preserve these birds,' and even suggested that the Government might just as well 'make a quick finish by throwing off all shooting restrictions and allowing gunners to complete the destruction of another of our great natural resources as rapidly and as painlessly as possible.' How, then, does it happen that Maryland duck shooters may look forward today to an excellent season? No thanks are due to Maryland for this happy situation. No thanks are due the Susquehanna netters, who have sent truckloads of bootleg ducks to northern markets after catching them in wholesale lots on the feeding marshes. No thanks are due the Chesapeake trappers, and the game-hogs who slay ducks with small cannon in sneakboats. No thanks are due to greedy legitimate gunners who have always held out against a shorter season. The increase in ducks was brought about by stringent Federal legislation. The Federal restrictions brought the three months' season down to thirty days, closed it entirely for certain badly depleted species and imposed a small bag limit. These restrictions superseded the State game laws, which were, and still are, at variance with the Federal program. Now that the ducks and geese have come back in large flocks, it is possible to allow a longer shooting season, a larger bag. The Marylanders who welcome this increase would do well to reflect on what brought it about. There is an object lesson here."

J.A.M.A. Articles The November 5 issue of the Journal of the American Medical Association contains the following of interest to the Department: Chronic Effects of Ingested Lead and Arsenic, by Herbert O. Calvery (Food and Drug Administration); two articles and an editorial on human encephalitis caused by the virus of equine encephalomyelitis; and the last of a series of articles on vitamins, Human Requirements of Vitamin C, by Sybil L. Smith, Office of Experiment Stations. The Journal reports that the vitamin articles, 31 in all, will be published in book form.

Canadian, British Trade Pacts The Baltimore Sun (November 17) in an editorial on the United States' trade treaties with Great Britain and Canada, says: "...These treaties represent the culmination of Secretary Hull's campaign for a scaling down of the world's trade barriers. We have already negotiated reciprocal compacts with eighteen countries, including Canada, but in no case has

Canadian, British Trade Pacts (continued)

the basis for a reciprocal policy been as broad as it is in this instance. England is our best customer and Canada our next best. The two countries together absorb 31.3 percent of all our exports, nearly one-third. Our imports from them are by no means so large, but are nevertheless substantial. The unshackling of a trade exchange of such scope is an achievement of no mean order. Heretofore, Anglo-Canadian trade has been protected by the Ottawa agreements for preferential treatment of commerce between the various self-governing units of the British Empire. Trade between Canada and the United States has been facilitated as far as it was possible to do so by a special treaty. But because Anglo-American trade was still outside the charmed circle of these preferences, it was difficult, perhaps impossible, for any of the three countries to obtain the full benefit of the arrangements that were in force. Now that the United States and England have found a way to effect a mutually advantageous series of concessions, and this has been accompanied by a parallel revision of the Canadian treaty, the way should be open to a much richer harvest than heretofore of the trade possibilities between the three countries. This consummation would have been important in any circumstances, but it becomes particularly important at this juncture in world affairs. At a moment when dictator-ridden Europe is torn with animosities and rivalries and fears, three of the greatest self-governing countries in the world agree to submerge many of their commercial differences and to participate in a new and wider exchange of commodities on the basis of mutual advantage. No political implications of any sort inhere in this understanding..."

Cooperative "Three hundred farm families near Piqua, Ohio, are Refrigeration taking a fuller advantage of their membership in the Pioneer Rural Electric Cooperative than just the electric service on their farms," says George D. Munger, Rural Electrification Administration. "The REA has approved a loan of \$15,000 to the cooperative group to enable them to construct a community refrigeration plant of the locker storage type. The Pioneer Cooperative was among the first of the REA-financed line-construction projects, and this allotment of funds by REA for the refrigerator storage plant is the first of its type. REA considers the undertaking in the nature of an experiment likely to lead to widespread use of community plants. Powered by the lines of the cooperative, the new plant when completed will have 300 lockers, each of 6 cubic feet capacity...As in all REA-financed projects, the cooperative as a whole will assume responsibility for repayment of the loan. In this instance, the loan runs for a period of five years at interest of 2.73 percent. The lockers will be rented to members. The rental return is estimated to be ample to retire the loan, pay for electricity used from the cooperative lines, and to provide additional funds for payrolls and working capital. Aside from supervisory and engineering tasks, once the plant is in operation, the greater part of the labor will be performed by the farm members."

Barred Rock "When a hen makes a world's record, she's worth
 Hen Record shouting about; but when ^{she} is a remarkable breeder besides,
 then it's real news," says New England Homestead (Novem-
 ber 5). "On R. Walter Bishop's Pedigree Breeding Farm, Guilford, Conn.,
 this year, R.O.P. Hen No. 3232 finished her seventh laying year with a
 total official production of 1089 eggs, which is the official world's
 record for Barred Rocks for long-distance laying. Hen No. 3232 has
 qualified for U.S.R.O.M., highest breeding grade under the National
 Poultry Improvement Plan...Her production record has been checked during
 her entire lifetime by R. W. Allen, R.O.P. Inspector for Connecticut, and
 is official."

Cooperative To some Christmas means money going out; to others,
 Xmas Trees money coming in. On the Tremper Holly Farm, King county,
 Washington, employees are now at work cutting, sorting,
 packing, and shipping shiny leaves and red berries--mostly to eastern
 cities, some to foreign countries. Thousands of Tremper holly trees
 supply tons of Christmas decorations. The holly goes out in packages
 of all sizes, in refrigerated cars as well as by parcel post and express.
 From the mountain pastures of northern New Hampshire and Vermont well
 over a million Christmas trees, unhurt by September's hurricane, are now
 starting to move to market..... Through a co-
 operative association (Forest Products Association, Inc.), which super-
 vises cutting, grading, bundling and shipping, New Hampshire tree pro-
 ducers are putting trees of better quality on the market. Trees are
 sold as "fancy" or "standard," identified with attractive tags. Bundles
 are tied with red string. Last year's experience proves this pays; that
 dealers are willing to pay more for better trees. As result of the co-op
 marketing program, New Hampshire now finds it needs to build up a supply
 of trees. Landowners are planting balsam fir extensively, so as to safe-
 guard the state's annual \$75,000 Christmas tree income (a figure that
 does not include employment for men, teams and trucks). (Farm Journal, Dec.

Turkey To aid its developing turkey industry, New Jersey
 Farm is establishing a turkey research farm in Cumberland County.
 That county's board of freeholders is helping by contribut-
 ing the needed buildings. New Jersey turkey growers will probably special-
 ize in fresh-killed near-by holiday birds. Intensive production methods
 will be tried out, including turkeys reared on porches, even in batteries.
 A demand is anticipated for turkey broilers; for quick-frozen birds, half
 turkeys, turkey breasts, and so on. Feeding, breeding, diseases, housing,
 flock units and many other lines of research will be under way by next
 spring. Efforts may be made to develop superior types or strains of
 turkeys. Eastern turkey growing is not necessarily in direct competition
 with the great western turkey enterprises, points out Willard C. Thompson,
 New Jersey College of Agriculture. It serves a different consumer group
 and might well develop its own special products. (Country Gentleman,
 December.)

DAILY DIGEST

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Section 1

November 21, 1938

TRANSPORTATION PROBLEMS

Creation of a Federal Department of Transportation with a Secretary of Transportation of Cabinet rank has been recommended to the Transportation Conference of the Chamber of Commerce of the United States, which reconvenes in Washington today. The proposal was made by Cassius M. Clay, head of the Railroad Legal Section of the Reconstruction Finance Corporation. Writing unofficially as a citizen, he urged early Congressional action to put the transportation system on a paying basis, holding that it would not be sufficient merely to rely on better times to lift the railroads out of their present difficulties. (New York Times.)

A recommendation that the Nation's railroads be permitted to work out their own programs of consolidation "without interference of the Interstate Commerce Commission" was a major topic at the opening session of the Mississippi Valley Association convention yesterday. "The present law is ineffective," declared Lachlan MacCleay, executive vice president of the association, "as it requires the Interstate Commerce Commission to prescribe consolidation plans in advance, instead of permitting the rail lines to work out their own problems..." (Associated Press.)

GRANGE HEAD ON FARM INCOMES

Farm incomes are out of balance with those of other occupations in the United States, Louis J. Taber, master of the National Grange, told delegates attending the 1938 convention Saturday. The farmer, he said, represents almost 30 percent of the Nation's population and farms almost 20 percent of the Nation's wealth. The farmers comprise 18 percent of all persons gainfully employed. "Yet during the past decade the farmer has received barely 10 percent of the Nation's income," he said. (Associated Press.)

RETAIL COTTON COMMITTEES

Three retail committees which will begin an immediate investigation of the possibilities of increasing cotton consumption through the normal channels of business and trade as an aid to the Department of Agriculture in solving the cotton surplus problem, were appointed yesterday by Saul Cohn, president of the National Retail Dry Goods Association. One committee will deal with the general economic phases of the problem, one with the merchandising aspects and the third with sales promotion. (New York Times.)

Ear-Tagged Dairy Cattle S. R. Winters, in Country Gentleman (December) contributes an item on the Bureau of Dairy Industry system of ear tagging animals in the dairy-herd-improvement associations. This system, he says, "was begun in 1935 under a plan developed by Dr. J. F. Kendrick, now head of the Division of Dairy Herd Improvement Investigations. The chief purpose of this identification work is to make it possible to prove greater numbers of dairy bulls and to increase the accuracy of the work...After the new system of positive identification gets into full operation it will be as easy to prove bulls in grade herds as in herds of registered dairy cattle. This will greatly extend the proving of bulls through a comparison of the productive records of the daughters of each bull with the production records of their dams...The production records have been standardized so as to make possible the comparison of dams and daughters regardless of age. The bureau has also been courageous enough to publish in full the results of its work and actually gives the breed, name and number of each bull and the average yearly production records of his daughters and their dams. At the present time there are more than half a million dairy cows on test in improvement associations...The calves are ear tagged as soon after they are dropped as the work can be done conveniently. At present, these calves are being ear tagged at the rate of 1,200 a day, and the ear tag number of each calf is placed on file among the permanent records in the Bureau of Dairy Industry."

Arctic Plant Collection A report in the Washington Post says the Rev. Arthème A. Dutilly of Catholic University (Washington) has brought back more than 12,000 plant specimens from the Arctic. The specimens will be studied and sorted in laboratories at Catholic University. An assortment will be sent to the Vatican Museum, some will go to the Department of Agriculture, some will stay at the university and others will be exchanged with universities and laboratories in other parts of the world.

4-H Dairy Contest "Four-H members and leaders of the Southern States carried on a far-reaching educational campaign in the dairy field this past year in the form of public demonstrations which terminated successfully at the National Dairy Show in October," says Southern Dairy Products Journal (November). "...Approximately 1,200 4-H boys and girls worked up and took part in one or more demonstrations...The contest was conducted by the Extension Services of the participating states, with the cooperation of the U.S. Department of Agriculture and various dairy producers and manufacturers associations. The contest was offered to the states for the second year by the National Committee on Boys and Girls Club Work and was made possible through the interest in 4-H Club work and financial support of a cheese corporation, which provided medals for the first and second placing county teams, all-expense trips to Columbus for the winning state teams and \$2,800 in college scholarships for the eight sectional winning teams in the finals at Columbus..."

Wis. Game "Largest game-bird propagation program in the history
Propagation of Wisconsin, and possibly the largest program of its kind
 the world has ever known, is now nearing completion," says
an editorial in *Fur-Fish-Game* (December). "Carried on by the game divi-
sion of the Wisconsin Conservation Department, with activities centered at
the State Experimental Game and Fur Farm, Poynette--largest single game-
production farm in the world--this program has produced during the year
192,668 game birds, including several varieties of pheasants, chukar par-
tridge, valley quail and wild turkeys. In addition, 10,073 breeding birds,
of which 9,273 were pheasants, were liberated in Wisconsin in June and
July. High spots of the record-breaking program, nearing completion now,
include: Distribution of 79,577 day-old pheasant chicks to cooperating
sportsmen's groups in 55 Wisconsin counties; distribution of 35,000 pheas-
ants from four to five weeks old to state organizations that have cooperat-
ed in the rearing of day-old chicks; distribution of 23,592 full-winged
young birds as county allotments to 63 Wisconsin counties; distribution of
42,146 pheasant eggs to state 4-H clubs, Future Farmers organizations, Boy
Scouts and individual farmers; production of 17,000 pheasants, which are
being retained at the state game farm as breeding stock for the 1939 pro-
gram...At the close of this year's breeding season, 354 mature chukar par-
tridge were liberated; 1,606 chukars were kept at the farm for breeding
stock...Stocking of wild turkeys was also continued during 1938. Eighty-
six mature birds were released...Additional experiments include releases
of 500 valley quail and further plantings of Hungarian partridge. New
varieties for observation include reeves, nopal-kaleege, mutant and for-
mosan..."

Articles "Southern Lumberman," reports the November 15 issue,
on Wood "has recently started printing a series of authoritative
 articles on the subject of wood technology, designed to
give the average lumberman some basic knowledge of the technological as-
pects of the business from the tree seed to the finished products. These
articles are written by H. D. Tiemann, who is associated with the Forest
Products Laboratory at Madison, Wisconsin, and who is recognized as one
of the world's foremost authorities on the technology of wood. Aside from
his scientific knowledge of the subject, Mr. Tiemann also has the ability
to present his facts in a clear and understandable way for the practical
lumber manufacturer and user...The day has passed when the practical man
can ignore the scientific aspects of manufacturing and selling...These
'Lessons in Wood Technology' will appear in our issue of the fifteenth
of each month for several months to come..."

Rural Group The Farm Journal (December) contains an item about
Hospitalization a group hospitalization plan for farmers organized by the
 Missouri Farm Bureau Federation. Under the plan, a non-
profit arrangements, "individuals will pay \$2.25 every three months. Farm
families will pay \$4.50. The payment entitles any member of the family to
21 days' hospital care a year, use of operating rooms and most other stan-
dard hospital services. All farm bureau members under 65 can join. A 20
percent membership of each county bureau is necessary."

Cotton for Ditch Lining "One of the new developments of interest in irrigated farming practices in Kittitas County (Wash.) is the use of cheap cotton fabric for lining irrigation ditches," says Washington Farmer (November 10). "The fabric, manufactured as part of an experiment looking toward the utilization of surplus cotton, costs from 1 to 1 1/2 cents per yard at present. It is used in lining head ditches and others that are on a grade steep enough to cause soil erosion if the land were not protected in some way. The fabric lasts for one irrigation season and in addition to overcoming the tendency to erosion helps prevent the growth of weeds in the irrigation ditches and corrugations."

Southern Economics This country's trade agreement program cannot make, at any time in the near future, any substantial contribution toward a solution of the cotton problem, but benefit to cotton from trade agreements must come through an increase in American imports, Secretary Wallace said last week at Duke University. Delivering the final address in a two-day symposium on "The Changing Economic Base of the South," he said: "I do not mean to advocate in any way a lessening of our trade agreement efforts, but I do suggest that we not allow our real and warranted enthusiasm for trade agreements to blind us to the possible effect which the Munich pact may have on the trade of the world, including the demand for American cotton. "It is just as important for the farmers and land-grant colleges of the South to study the significance of the trading methods of the totalitarian states as it is to study the oncoming impact of synthetic fiber inventions..." (New York Times.)

At the same symposium Dr. Claudius T. Murchison, president of the Cotton Textile Institute, said that although consumption of cotton goods in the United States "appears definitely on the wane", the industry will be able to continue without any great loss because of its adaptability for the spinning of other fibers. The outcome, however, he said, "may be a tragedy for our cotton farmers, with unfavorable consequences to the country at large." Mr. Murchison cited the inroads made by rayon and other materials in production of articles competing with cotton, but pointed out that rayon staple can be a satisfactory raw material for spinning mills and that it has been demonstrated that rayon yarn can be satisfactorily woven on cotton looms. (Press.)

Waterproof Dobe Bricks "Being cheap, sun-dried bricks have long been a favored building material," says J. E. Hogg in Country Gentleman (December), "but as they absorb moisture too easily, their use has largely been confined to regions of limited rainfall like our own Southwest." He reports that the addition of emulsified asphalt to the soil being used will give a brick that is hard and durable. "This new-type adobe construction has been approved by the Federal Housing Authority and by bankers and other who finance building operations." There is also an article by J. R. Redditt, of the University of Nebraska, describing an asphalt-emulsion block poultry house recently completed at the experiment station farm.

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Section 1

November 22, 1938

COTTON COUNCIL

"King Cotton is the nation's economic problem No. 1," Oscar Johnston of Scott, Mississippi, "father" of the National Cotton Council and former manager of the United States Cotton Pool, asserted at a meeting of five primary groups of the industry to perfect organization of the new council at Memphis yesterday. If the cotton industry is to find a solution to its problems, he declared, it must work out the solution itself and not depend on the Federal Government. The solution, he added, lies in increasing consumption. Increased consumption will be sought through intensive domestic advertising, cultivation of good will toward American cotton in foreign markets, stimulation of international commerce with the industrial nations, scientific research for the discovery of new uses for cotton and improvement of manufactured cotton products now in use. (New York Times.)

STRIKE HALTS STOCK TRADING

A C.I.O. strike halted trading in livestock in the Chicago stockyards, the nation's largest, yesterday, says an Associated Press report. About 40,000 head of cattle, sheep and hogs worth about \$1,250,000 were corraled in pens. Some cattle were sold subject to weighing, but no quotations were available on these as virtually all remained in the pens without being placed on the scales. Farmers were advised to curtail shipments. About 5,000 cattle, 15,000 hogs and 6,000 sheep were scheduled to arrive today on the basis of earlier bookings.

ICC FREIGHT RULING

The Interstate Commerce Commission, seeking to place freight rates for fruit-vegetable hampers and baskets on a more uniform basis, ruled yesterday that they should go on a classification basis paralleling the rates on lumber and on box and crate material. The general effect, employees of the ICC explained, will be an increase in the rates. In some cases, it was said, the rates may go up as much as 25 percent; the change will provide reductions in some few cases. Virtually all territory east of the Rocky Mountains is affected by the case. (Associated Press.)

AFBF ENDORSES TVA PROGRAM

Testifying before the Congressional investigating committee yesterday, representatives of the American Farm Bureau Federation, saying they spoke for 1,500,000 farm people, approved the TVA program for production of cheap, highly concentrated phosphate fertilizers. They urged expansion of the present TVA experimental work. (New York Times.)

Indian Cotton "With the object of finding out additional outlets
Experiments for Indian short staple cotton, the Indian Central Cot-
 ton Committee has set aside a sum of 30,000 rupees to
explore the possibilities of manufacturing rayon from short staple cot-
ton, particularly from cotton linters and similar materials," says
Current Science (Bangalore, October). "The Industrial Research Bureau
is collaborating with the committee in these enquiries and in working
out the relative costs and the suitability of the various processes for
the manufacture of artificial silk in India. The data so far available
indicate that the price of chemical cotton manufactured from short staple
cotton would be far too high, but there is a possibility that chemical
cotton produced from linters would be reasonably cheap. It is now pro-
posed to carry the experimental work done in the past for the determina-
tion of the cost of producing chemical cotton, a stage further, by the
installation of a small-scale pilot plant for determining the cost of
preparing chemical cotton which is the basis for rayon manufacture."

Decreasing "Shortening the Mississippi River by succeeding cut-
Flood Crests offs made over a period of five years leaves few engineers
 unconvinced of the broad flood-control value of the work,"
says an editorial in Engineering News-Record (November 17). "Evidence
has accumulated bit by bit as each river loop was amputated that a
hydraulically sounder river channel was being produced, and finally the
flood of 1937 proved the success of the surgical reconstruction. In an
article (Cutoffs Lower Flood Crests), George R. Clemens of the Mississippi
Commission tells of the development of the cutoffs in detail and of the
final result of a 10 percent or greater reduction in flood heights. No
more successful operation in changing the water-carrying capacity of a
great river has ever been recorded..."

Rubber Implement & Tractor (November 12) reports that the
Bureau rubber producing interests have opened a Crude Rubber
 Development Bureau (Washington). "This new organization,"
it says, "will function as part of an international project to study and
publicize new markets for, and increasingly important uses of, crude rub-
ber. Warren S. Lockwood, formerly American assistant trade commissioner
in Singapore, Batavia and London, has been appointed director. The
bureau is to carry out a program in the United States, similar to that
which has been developed by the British Rubber Publicity Association
during the past year in England and Empire countries, in which the use
of rubber in agriculture is prominently featured, and for the first year
of its operation the bureau aims to concentrate its activities almost
exclusively in the agricultural field."

Civil Service The Civil Service Commission announces the following
Examinations examinations: Principal Chemist, \$5,600; Principal
 Chemical Engineer, \$5,600; Dept. of Agriculture (un-
assembled). Applications must be on file not later than the following
dates: (a) December 27, if received from states other than those named
in (b), (b) December 30, if received from Arizona, California, Colorado,
Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.
Chief Engineering Draftsman, \$2,600; Optional Branches: Aeronautical,
Architectural, Civil, Electrical, Mechanical, Structural; (assembled),
Navy Department, Mechanic (Pneumatic Mail Tube System), \$1,680, (For
appointment in Washington, D. C. only) (unassembled) Branch of Build-
ings Management, National Park Service, Department of the Interior.
Applications for the Draftsman and Mechanic examinations must be on
file not later than the following dates--(a) December 19, if received
from states other than those named in (b), (b) December 22, if received
from Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico,
Oregon, Utah, Washington, Wyoming.

Patent "The nostrum evil flourishes in most parts of the
Medicines world," says an editorial in the American Journal of
 Public Health (November). "The fight against patent
medicines has been a long and sickening one in this country, and only
recently have we succeeded in getting a law passed which has raised
expectations for better things. It is too much to hope that the fight
is over and that the victory is complete or permanent. Reports from
England indicate that the trade in quack medicines has been growing
enormously, so much so that Lord Horder has been led to take up the mat-
ter in the House of Lords...In England, as here, while some proprietary
remedies are fairly good in themselves and the claims made for them
fairly reasonable, not infrequently preparations are sold that do defi-
nite harm. This applies not only to medicines for internal use but also
to those for external application, and especially to cosmetics. Our re-
cent experience in this country with the elixir of sulphanilamide is an
example of what has been possible here...The radio has brought to us an
entirely new problem...The broadcasts reach an enormous audience. In
1935, the drug manufacturers spent \$15,986,507 on radio advertisements.
That they can afford to spend such vast sums shows the profits derived
from the business. A number of books have been written, chiefly by lay-
men, on the drug evil, and some by medical men. The Massachusetts Agri-
cultural Experiment Station, Bulletin 342, has given one of the best
expositions which have come to our attention. This Bulletin of 30 pages
covers the subject in a masterly way and ends by giving a list of 10
articles and books which can well be studied. Other books, like 'The
Traffic in Health,' written by a physician, have appeared. The matter
is one of the greatest interest and importance. The public health and
medical professions owe it to the governmental agencies and to the public
to give support to such laws as exist and to make every effort to aid in
their efficient administration..."

Maine Potato Starch Plants Equipped with newly designed time saving machinery for the manufacture of starch for New England textile mills, two potato starch plants are nearing completion at Houlton, Maine. The two mills, using surplus potato crops, are reported to mark a notable advance in the process of American starch manufacturing and point to a wider use of agricultural products in industrial fields. One company will use approximately 2,000 barrels of potatoes a day and have a maximum production capacity of 20 tons of finished starch a day. In this mill the "time cycle" of manufacturing will be reduced from the usual 72 hours to six hours. At the other plant a new type of American starch will be manufactured which will compete with the finest of imported starches. In addition to utilizing surplus local crops, the plant also will manufacture from imported raw materials. (Farm Machinery & Equipment, Nov.)

Range Grass Test Plot An extensive range grass test plot has been seeded on the Morse Cattle Ranch in Reed Valley, California, according to N. L. McFarlane, Assistant County Agent. The purpose of the plot is to attempt to find grasses and legumes well adapted to the cattle country and superior to the native plants now growing in the area. The plots will be conducted for five years with new introductions from all parts of the United States and foreign countries. A series of five legumes belonging to the alfalfa family brought to the United States by the United States Department of Agriculture have been planted and will be observed with special interest. Sixty-two different grasses and legumes have been planted. (Pacific Rural Press, November 12.)

Rural Reading There is a marked trend toward educational activity on the part of the rural librarian, according to Marion Humble, whose study, "Rural America Reads," has recently been published, says a report in the New York Times. It is one of a series of studies in the social significance of adult education being made over a five-year period by the American Association for Adult Education. The trend toward educational activity by the rural librarians, Miss Humble finds, is evidenced in the consolidation and strengthening of library resources, the cooperation between librarians and other agencies in getting books to readers and attracting readers to books, the desire of librarians to continue their own education and their efforts to obtain more adequate financial support in order that library services may be improved and extended. "Yet," says Miss Humble, "in hundreds of villages where independent libraries have been established the library service is entirely inadequate to the needs of the people." The American Library Association estimates that there are nearly 40,000,000 persons in the United States living in rural areas having no public library service.

DAILY DIGEST

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Vol. LXXI, No. 37

Section 1

November 23, 1938

TRANSPORTATION CONFERENCE

Abandonment of federal rail merger plans and freedom from "unfair" government barge line competition were demanded yesterday by the Transportation Conference of 1938, called under U.S. Chamber of Commerce auspices. Concluding a two-day session on carrier problems, representatives of railroads, shippers and other business and transportation interests asked a freer hand for voluntary rail consolidations and coordinations, in the interest of economy, better service and "reasonable competition." (Washington Post.)

EXPRESS RATE RISE ASKED

The Railway Express Agency, Inc., filed yesterday with the Interstate Commerce Commission its brief in behalf of the revised express rate structure for which it recently petitioned the commission. It seeks at least \$10,000,000 additional annual revenue by lowering certain of its small package charges and revising charges for heavier packages, generally upward. Briefs opposing the agency's plan were filed by the California Growers and Shippers Protective League, the Public Service Commission of Wisconsin, the National Retail Drygoods Association and others. (Press.)

CHICAGO STOCKYARDS

The management of the Chicago stockyards yesterday announced operations would be continued despite a strike of C.I.O. unionists. Under an agreement with the Packing House Workers Union, the 60,000 cattle, sheep and hogs herded into the corrals since the walkout day before yesterday were sold. Charles R. Rice, president of the Chicago Livestock Exchange, said he had entered into an agreement with the union to permit commission men to feed and water 10,000 incoming animals today. (Associated Press.)

COTTON COUNCIL

A campaign for lower freight rates and research for new uses of cotton will constitute the keystone of the National Cotton Council's program for increased use of cotton, says a Memphis report to the New York Times. A minimum annual outlay of \$150,000 is to be increased gradually until it becomes \$2,000,000, Oscar Johnston, chairman of the council, announced. The cotton men hope that by an assessment plan enough money can be raised to ultimately restore cotton to the high estate it held before foreign growths cut down the markets abroad and before substitutes cut down home consumption.

Gas Preserves Business Week (November 19) contains a short article
Shipped Fruit on the Minnesota method of gassing fruit to preserve it
 during shipment and to prevent mold and rot. "According
to Dr. R. H. Landon, University of Minnesota plant pathologist," it says,
"the methods are definitely past the experimental stage. For the past
three years, Minnesota growers have been shipping and selling gassed
strawberries and raspberries to dealers in the Dakotas, Iowa, and Illinois,
who have evidenced a marked favor for the gassed berries because they are
firmer in texture than untreated berries, brighter in color, and far
freer from mold. Further, the Minnesota scientists claim that 'during
the entire season, no moldy berries were found in treated berries at time
of sale, a remarkable record for a fall-picked crop.' Check crates of
untreated berries, picked and shipped at the same time, proved the superi-
ority of the gassed fruit...Scientists at the Minnesota Agricultural
Experiment Station built insulated galvanized-iron chambers with capaci-
ties ranging from 40 to 160 cu. ft. (a 100-cu.ft.chamber will hold approxi-
mately 34 crates of 24-pint capacity or 21 crates of 24-quart capacity).
To these they admitted various concentrations of carbon dioxide, using
gas in solid (dry ice) or liquid form, for varying lengths of time.
Optimum results seem to follow gas treatments which average about 11 to
12 hours with initial concentrations of gas running about 40 to 45%.
Seepage drops the concentrations to about 30% after two hours, 20% after
four hours, and so on to zero. Liquid gas was found more economical than
solid, the cost of the former running approximately 3¢ per 24-pint crate
or 5¢ per 24-quart crate..."

U.S.-Anglo The Anglo-American trade agreement offers more favor-
Trade Pact able possibilities for a general advance in international
 trade than any other of the eighteen agreements now in
operation, the National Foreign Trade Council, Inc. says. The agreement
is especially welcome because of its influence on America's future trade
relations with the British Commonwealth of Nations as a whole in that it
identifies Britain definitely with the changed attitude of Canada to the
Ottawa Conference tariff policy, the council said. "It means a vast en-
largement of the area of freer trade and should exert a powerful influence
in determining the principles and practices by which international trade
relationships in the future may be more uniformly governed, and thereby
contribute in an increased degree to a maximum expansion of world commer-
cial possibilities," the council said. (New York Herald Tribune, Novem-
ber 18.)

Peru Road A convoy of 150 automobiles headed by the President
 of the Republic of Peru recently officially inaugurated a
100-mile addition to the Peruvian section of the Pan-American Highway,
says a Lima cable to the New York Times. The new concrete and asphalt
road opens up a large agricultural section.

Wis. Cattle
Schools

"Wisconsin is fortunate to have become a new center of thought and practice in modern principles of cattle breeding," says an editorial in Wisconsin Agriculturist (November 19). "We have Dr. E. E. Heizer, noteworthy authority on the subject as chief of dairy cattle work at the experiment station; Gordon Dickerson, a capable student of genetics as applied to cattle; Glenn Vergeront, a man with a photographic mind for practical pedigrees and production; and Howard Clapp, one of the foremost authorities on artificial methods of breeding. Naturally there are many others too numerous to mention now, who will share in the forthcoming series of breeding schools, slated for more than half the counties of Wisconsin this winter. This paper heartily endorses such a constructive movement, and while some of the topics are highly scientific and complex, the final results translated to the field of the ordinary producer and farm feeder will in the course of a few years find gradual acceptance for everyday use."

Oklahoma
Tenancy Law

John M. White, Oklahoma Farm-Tenant Commission, is author of "Oklahoma Tackles Tenancy Problem" in Farm and Ranch (November 15). In a bill passed by the last State Legislature, he says, "a department was set up as a part of the Extension Division, Oklahoma A. and M. College, to be known as the Farm Landowner-Tenant Relationship Department. A supervisor and two assistants were appointed to operate under the direct supervision of the Assistant Director of Extension...As Oklahoma is one of the first States to set up a special department to deal with the farm landlord-tenant problem, it was deemed advisable to make a careful study of all information available...As a preliminary survey, more than a thousand individual farmers were interviewed to get first-hand information from the men who are making farming their life's business. Among this group were agents for large land companies controlling thousands of farms over the State, individual owners, part owners and tenants who are renting on every conceivable plan from cash on through to share croppers..."

Consumer
Purchasing

Seven steps which can be taken to improve merchandise and to aid consumers in choosing goods were outlined in a Harvard Business School research study prepared by Mrs. Mabel Taylor Gragg in collaboration with Neil H. Borden, professor of advertising. The study, entitled "Merchandise Testing as an Aid to Consumer Buying," is one of the first to give attention to the growing consumer movement. The seven specific recommendations in the report were as follows: The development of identifying classifications of merchandise; the use of classifications which tend to reduce the variety of goods; creation of a dictionary of understandable terms covering product qualities; the prevention of the manufacture and sale of harmful and fraudulent merchandise; the preparation and publishing among consumers of fundamental facts regarding the character, use and care of various types of goods; the support of basic research aimed at the improvement, rather than the evaluation, of products; and encouragement of improvement in business methods and the growth of pride in business integrity. (Press.)

Lubin on Business The depression of last summer was in the marketing of durable rather than consumption goods, Dr. Isador Lubin, commissioner of the Bureau of Labor Statistics, told representatives of 24 state-wide retail associations and seven national trade associations, this week. Illustrating his talk with statistical charts, Dr. Lubin said that new housing construction is only about a third of the national average for a decade preceding the 1929 crash despite the stimulus of the Federal Housing Administration. He expressed the hope that business will be patient in the present upturn and wait for profits from volume turnover rather than take quick dividends from an increase in prices. Citing unemployment estimates, Dr. Lubin pointed out that industry must absorb 500,000 youths who reach employment age each year as well as take on idle adults if it is to cut down the Nation's unemployment rolls. The industries that sell clothes, food and other consumption goods held up well in the 1938 recession, Dr. Lubin said. This he attributed partially to WPA expenditures and unemployment compensation payments. (Washington Post.)

Metal Farm Buildings Steel went to the farm this week when the Tennessee Coal, Iron and Railroad Company shipped the first of twelve units of prefabricated metal farm buildings to sites selected by the Farm Security Administration in Alabama, Georgia and South Carolina, says a Birmingham ^{ham} report by the Associated Press. Each unit includes five buildings--a dwelling, barn, chicken-house, outdoor pantry and sanitary privy. The buildings were designed by engineers of T.C.I. and the Farm Security Administration. The dwelling contains a living room, three bedrooms and combination kitchen and dining room. Two large closets and a pantry are included and space is available for a bathroom, if desired. All of the foundation structure, the frame, sides, roof, exterior door, window trims and fireplace are of steel. Interior floors and doors are of wood. An insulating wallboard is used as interior finish for the walls and ceilings. Steel joists support a wooden floor. Complete prefabrication enables swift erection of the buildings by the simple expedient of bolting together the panels. Both dwelling and out-buildings will be available in several designs and dimensions. If the homeowner wishes to add a room, this is done by making the dimensions in multiples of four.

Synthetic Resins Synthetic resins and their raw materials are covered by a survey made public recently by the Tariff Commission, in which it is shown that domestic output of the synthetic product increased from less than 2,000,000 pounds in 1921 to 162,000,000 last year, and the value of their sales from \$1,400,000 to \$25,800,000. The survey stressed that few persons realized the tremendous growth of this new industry, although most citizens have had daily contact with synthetic resins in some form or other in radio cabinets, molded parts of electrical apparatus, lacquers, enamels, decorative wall panels, table tops, bottle closures and the shades for lighting fixtures. (Press.)

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Section 1

November 25, 1938

CITRUS FRUIT MARKETING

A program designed to encourage the marketing of this season's record orange and grapefruit crops, through lowering of packing and handling charges and prices, formulated at a meeting of representatives of retailers, wholesalers, shippers and growers, was made public yesterday. The conference, called by the Department of Agriculture, made recommendations for "increasing the consumption of citrus fruits. and to enable retail groups to support a reasonable return to producers and a fair retail price to consumers." (New York Times.)

RECORD GRAIN RECEIPTS

Receipts of grain at Chicago since January 1 have passed the 200,000,000 bushel total for the first year since 1928, it was established day before yesterday through records compiled by Lyman C. West, statistician for the Chicago Board of Trade. Receipts of corn alone have already exceeded 129,000,000 bushels, or almost twice the amount which arrived in Chicago during all of 1937. Shipments, too, a phase of the manifold activities and services of merchants, members of the Board of Trade, are much greater than a year ago. Day before yesterday they totaled above 145,000,000 bushels, as compared with 97,624,000 bushels for all 12 months of 1937. (Baltimore Sun.)

CALIFORNIA FOREST FIRES

Although fresh outbreaks were reported on a 100-mile-long mountain front, Southern California's biggest and most costly forest fires in years were virtually under control last night, after taxing the resources of authorities of four counties and drawing on the services of 2,000 or more CCC and PWA workers. Nearly 15,000 acres had been burned over in six fires, extending from the eastern fringes of Santa Barbara County through Ventura and Los Angeles Counties into San Bernadino County. (New York Times.)

EXPRESS RATE RISE OPPOSED

Secretary of Agriculture Wallace has asked the Interstate Commerce Commission to refuse any increases in express rates on agricultural products, says an Associated Press report. The Railway Express Agency, Inc., has applied for permission to revise its rate structure in an effort to add \$10,000,000 yearly to its revenues. "The financial situation of the express company may be depressed, Secretary Wallace said in a brief filed with the ICC, "but it is probably not as depressed as that of the farmer shipping by express."

New Device Explodes Nuts California's \$10,000,000 walnut industry will add 20 percent to its marketable supply of "first-quality, extra-price" production and eliminate a lot of hand labor as a result of a new internal combustion nut cracker which explodes the shell by force applied from within. It will replace the present operation of cracking between blocks and removing shells by hand, a process that damages, wholly or partly, about 80 percent of production. The device, developed by the University of California for the California Walnut Growers' Association, will cost less than \$200 and shells 900 pounds of walnuts an hour. Nuts pass over a circular saw which cuts a slot in the shell. A mixture of gases is shot into the nut through the slot. When the nuts drop through a round gas burner the gases are ignited, the shell blown from the kernel. Mechanism below separates meats and shells. (Business Week, November 19.)

Arctic Bird Studies A press report from Ottawa says a wealth of new information has been added to the ornithological records of the Eastern Arctic, as a result of observations by T. M. Shortt, ornithologist of the Royal Ontario Museum of Zoology, when he accompanied the 1938 Eastern Arctic Patrol on its 11,000-mile cruise through the Arctic Archipelago and Hudson Strait and Bay. During the patrol 172 specimens representing about 45 species of birds were taken, and a considerable number of external and internal bird-parasites were preserved. In addition, color records of about thirty specimens, mostly of little known juvenile plumages, were painted. Several records establishing considerable extensions in the summer range of certain birds were made, notably a long eastward addition to the range of the yellow-billed loon, and northern extensions in the known ranges of lapland longspur, duck hawk, common loon, mallard, mountain bluebird and greater yellow legs. A series of horned larks was obtained with a view to throwing light on the detailed classification of this widely distributed species.

Smaller Farm Families Farms of the future will become larger and farm families smaller, if present and recent trends continue in the better farm areas of the nation, Dr. C.C. Taylor, head of the division of farm population and rural life, Bureau of Agricultural Economics, prophesied recently to the American Philosophical Society. "Under normal price levels, farms in these areas will become more profitable, net incomes per farm and family will be higher, levels of living will be higher, urbanization will increase, and birth rates will fall," said Dr. Taylor. "The poorer land areas of the nation, on the other hand, unless zoned against occupancies of certain types, will continue as small farm areas, incomes will remain low, mechanization will advance slowly if at all, birth rates will continue considerably above the national level, and although there will be migration out during periods of prosperity, there will be considerable in-migration in periods of depression." (Science Service, November 17.)

Farm Wastes Soap, salt, lime and such agricultural waste products
for Roads as cornstalks are vying with cement, sand gravel, asphalt
 and oil, the more orthodox road-building materials, in
plans for extension of Missouri's farm-to-market road system. Gravel
and crushed stone, in regions where they are plentiful, rank at the
top as road-building materials, but in North Missouri and Southeast
Missouri, where native stone or gravel is not available in quantities
and its importation from other sections is costly, highway laboratory
experiments are being put to practical use. More than twenty different
types of low-cost roads were put down in test strips, Dr. Hans F. Win-
terkorn, research associate in soils at the Missouri College of Agri-
culture, said recently. Furfural, soap, lime and the other new materials
are used for mixing with the native soil to waterproof the base of the
road. (New York Times, November 18.)

Calif. TB The Third District Court of Appeal upheld the con-
Law Upheld stitutionality of the California bovine tuberculosis act
 recently in an action brought jointly by 800 Merced
County dairymen, says a report in the Dairy Record (November 16). The
court affirmed the Merced County Superior Court judgment sustaining de-
murrers filed by the State Department of Agriculture which the dairymen,
owners of 60,000 condemned cattle, sought to restrain from carrying out
the provisions of the bovine tuberculosis eradication program. Asso-
ciate Justine Rolfe Thompson, who wrote the opinion, declared the act
does not constitute an unlawful delegation of authority in permitting
the State to test and condemn cattle found to be tuberculous.

Guaranteeing "The time is coming when breeders will be called
Dairy Bulls upon to guarantee what their bulls will transmit," says
 an editorial in Hoard's Dairyman (November 25). "If the
breeders of registered cattle do not see this and take steps to be in
position to furnish this kind of bulls, the system of record keeping
established by the Bureau of Dairy Industry will furnish information
that will show certain blood lines capable of transmitting a definite
quantity of fat and good production. These blood lines may be of
registered stock and they may be of grades. It is going to take some
years before the records of our herd improvement associations will show
up such lines of breeding, but the breeder of registered cattle should
recognize the possibilities of such competition in the future. It is
time now for every breeder of registered cattle to place all his cows
under some form of a test that he may know what each is capable of pro-
ducing."

Certified E. V. Hardenburg, Cornell University, in an article
Seed Potatoes on certified seed potatoes, in Market Growers Journal
 (November 15) says in part: "The average results from
thousands of comparisons between certified seed and common seed show

Certified Seed Potatoes (continued)

emphatically that the former may be expected to yield an increase amounting to at least 50 percent...Certified seed is now available in considerable volume in 21 states of this country and all of the maritime provinces of Canada. It is relatively inexpensive when one considers the results to be expected from it. Tests in seven counties of New York covering a period of six years showed an average gain of 78 bushels per acre for certified over uncertified seed. A gain of only 25 bushels per acre would pay the extra cost of certified seed if the seed cost a premium of 50 cents a bushel and if the yield increase were sold for only 50 cents a bushel. Most of the certified seed available today originated from selected foundation stock and is therefore potentially high yielding. Its quality varies mainly in the small percentage of virus diseases such as mosaic, leafroll, spindle-tuber and yellow-dwarf which it may contain. Recently those in charge of certification standards in the various states and provinces have cooperated in evolving a fairly uniform standard of requirements. The maximum tolerance allowed of the total of all virus diseases is seldom over 2 percent and of all diseases combined 4 percent..."

Frozen Food Western Canner and Packer (November) contains a short article on a new process of quick freezing food in cans. The method, it says, "is designed to make available to the frozen food industry the production-line methods of the modern cannery." Orange and lemon juice, fruit and fruit pulps, milk, cream, eggs, peas, asparagus, string beans and lima beans have been successfully frozen, according to the report.

Sulfanilamide Prediction that all infectious diseases may one day be brought under control through compounds of sulfanilamide is advanced by Dr. Perrin H. Long, of Johns Hopkins Medical School, pioneer worker with this new chemical ally of medicine. More than a thousand compounds have already been built on the basic sulfanilamide formula unit, and progress with the drug depends in large degree upon development of even more, Dr. Long said. He emphasized the toxic qualities of sulfanilamide and asserted that it should never be used by laymen without a doctor's prescription. Dr. Long's discussion, summarizing reports from medical laboratories all over the world, was divided into three sections, showing the checking effects of sulfanilamide on bacterial tissue infections carried by the blood stream, bacterial infections of the urinary tract, and protozoal and virus infections. (Science Service, November 16.)

Farm Digest The Department Library has received Vol. 1, No. 1 (November) of American Farm Digest. This new publication, according to an announcement, will contain: "(1) Authoritative market analyses and price trend indications on the major farm commodities, prepared by Gilbert Gusler, Farm Marketing Analyst...(2) long-range weather forecasts covering those applications of particular interest to the farmer, prepared by Irving P. Knick, Professor of Meteorology at California Institute of Technology...(3) quickly read abstracts of selected material published in more than 200 farm magazines and experi-

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Section 1

November 28, 1938

GRANGE FARM PLATFORM The executive committee of the National Grange made public at San Francisco last night its "platform for agriculture", calling for elevation of farm prices to the "reasonable profit" level and revision of federal farm policies. In a 15-point program evolved as the result of action taken at the recent National Grange convention in Portland, Oregon, the committee advocated "amendment and simplification" of the federal farm act, adoption of a monetary policy that will assure an honest measure of value of reasonable permanency and reorganization of government agencies "where efficiency or economy may be achieved." It resolved to permit no legislation to be adopted which will result in either immediate or eventual regimentation of the farmer and voiced opposition to any concentration of authority or infringement of state's rights. (Associated Press.)

FDA BOARD ADVOCATED Establishment of a board by the Department of Agriculture to advise makers of food, drugs and cosmetics on proper labels and labeling and permission for producers to file guarantees covering representations made about their products with the department in Washington, were urged yesterday by the National Retail Dry Goods Association in a brief filed with the Department in connection with proposed regulations under the provisions of the new federal food, drug and cosmetic act. In submitting its suggestions, the association declared it was most urgent that "this law be administered in such a manner that will insure adequate and proper enforcement at the minimum possible expense to industry." (New York Times.)

CHAMPION GRAIN GROWERS Two young Canadian brothers qualified as champion grain growers yesterday when they moved into the "king row" at the international grain and hay show, says a Chicago report by the Associated Press. F. Rigby, 23 years old, won the "wheat king" crown and his younger brother, W. Justyn Rigby, 22, took a place alongside him as the "oats king." Both gained experience in raising grain as members of the Canadian Boys and Girls Farm Clubs, a farm youth movement similar to 4-H Club activities in the United States. The "wheat king's" sample of grain weighed 67.5 pounds to the bushel and judges said it was one of the finest of hard red spring wheat they had ever seen.

New England The forty Civilian Conservation Corps camps in New Timber Salvage England will be used the next six or eight months on fire hazard reduction work in timbered areas, which were swept by the hurricane. About 8,000 men in these camps will devote their full time to clearing out inflammable debris from critical areas and to other types of fire prevention. The orders of Robert Fechner, director, resulted from a report by Fred Morrell, CCC representative of the Agriculture Department, who said that clearing of debris in New England was the largest single job yet attempted by the corps. The work of the enrollees is being carried on in Federal, State and privately owned forest areas, along roadsides, in farm woodlands and in towns and villages where trees were levelled by the wind. While these operations are under way, surveys are being continued by forest technicians and State officials to provide an accurate picture of the hurricane-hit area. (New York Times.)

Grazing Activities ranging from an airplane round-up of wild Report. horses in Oregon to the issuance of temporary one-year licenses to graze almost 10,000,000 head of cattle and sheep on approximately 120,000,000 acres of federal ranges in ten states of the West, were included in the program of conservation of natural resources carried out by the Division of Grazing, Department of the Interior, during the last fiscal year, Director F. R. Carpenter recently declared in his annual report to Secretary Harold L. Ickes. One of the newer agencies in the department, established with the enactment of the Taylor Grazing Act in 1934, the Division of Grazing is entrusted with the preservation of wild life, forage and water resources and the stabilization of the livestock industry on Federal range areas included in forty-nine grazing districts in Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah and Wyoming. (Press.)

Prefabricated "The prefabricated steel farmhouses and other build- Steel House ings which are to be erected by the Farm Security Administration on selected sites in Alabama, Georgia and South Carolina are by no means the first of their kind," says an editorial in the New York Times (November 25). "Yet they are of historic importance because their cost will be no more than that of similar structures built of less durable material. In fact, a group of five buildings, including a five-room dwelling, is to cost not much more than \$3,000...Promising as this development may seem, the engineers of the steel industry cherish no illusions about it. They realize only too well that prefabrication involves more than the working of materials in a factory, more than built-in sinks and bathtubs, wood floors, refrigeration, heating and ventilating. Even though a skillful farmer can erect his own buildings with the help of his neighbors in from five to eleven weeks, the expense of transporting sections to the site and lifting them in place may more than offset what

Prefabricated Steel Houses (continued)

may be saved in labor. Complete houses may even now be selected from a catalogue, but it is not yet certain that a distribution system similar to that available for automobiles can be evolved. Moreover, house building is so connected with real estate that experts doubt if the two can be separated in the suburbs of cities. It must not be overlooked that the Farm Security Administration buildings are to be erected on homestead projects. The mass-produced house must fit into the established order, meaning that it will be impossible to ignore the real estate broker and the speculator. The economic obstacles, therefore, are fully as formidable as the technical."

Rural Electric Peter van Dresser, author of "Will Electricity De-Cooperatives centralize Us?" in Free America (November) says in part:

"Socially desirable intermediate steps towards national electrification are the formation of cooperative rural plants, such as that of the Wisconsin Power Cooperative near Chippewa Falls, Wisconsin, which is designed to serve 12,000 farmers in eleven counties through distribution systems owned by ten member cooperatives. Another such plant is contemplated by the West Florida Cooperative Association at Marianna. Both of these plants are financed with federal aid. Like the majority of smaller electric stations in the country, they are powered by Diesel engines, hence are in the long view dependent on the somewhat doubtful future of the highly centralistic, imperialistic oil industry. However, they can play a valuable part in the introduction of electrotechnical methods into rural America, and the distribution systems which they bring into being may well be coupled into the continental network when it is finally achieved."

Farm Cash The Agriculture Department estimated, recently the
Income national cash farm income for the first 10 months of 1938
at \$6,198,000,000. The income for the corresponding period
last year was \$7,083,000,000, or about 12 percent more. Included in the
estimate were Government benefit payments totaling \$395,000,000, or 11 per-
cent more than the \$355,000,000 in Federal aid paid out during the first
10 months of 1937. The department estimated that the farm cash income for
the 12 months of 1938 would be about \$7,625,000,000, compared with
\$8,600,000,000 last year. (Associated Press.)

Licensed Ohio now licenses all of its livestock sales. Animals
Stock Sales sold at public auctions must first be inspected by a regis-
tered veterinarian. As a result of this practice, there has
been a reduction in scab-infested sheep flocks from 400 in
1935 to 49 this year, and hog cholera has been almost completely eliminated.
Public sales are growing in popularity. A group of 207 farmers, who
auctioned off 4,674 animals in 1934, disposed of nearly twice that
much stock by public sales in 1937. (Country Home Magazine, December.)

Rural Youth
Studies

The American Journal of Sociology (November) reports that the American Youth Commission, looking toward suggested programs to meet the needs of rural young people, "is conducting analyses along three lines: (1) investigation of more than one hundred rural studies made since 1930, ranging from limited surveys to comprehensive statistical analyses; (2) canvass of present and anticipated activities of such agencies as the Extension Services and Vocational Agricultural and Home Economics Training Services of the United States Department of Agriculture and Department of the Interior, as well as N.Y.A., C.C.C., and W.P.A.; finding of pertinent local developments with a view to rendering them available to other communities. The commission hopes to coordinate its several phases of the investigation into a report."

The same journal reports that the President has requested the Central Statistical Board to report not later than January 1, 1939, on the burdens and duplications involved in statistical work carried on by the federal government, with particular reference to the numbers of financial and other statistical reports and returns regularly required from business and industry and from private individuals under existing laws.

Southern Pulp
and Paper

"After a careful analysis of the available statistics, H. D. Killefer, a New York chemical engineer, reports in Industrial and Engineering Chemistry that within a decade pulp and paper will be removed 'from a leading position among the imports to one of far less prominence among the "also rans"', " says an editorial in the New York Times (November 26). "This rosy future is naturally associated with the researches which were conducted by the late Professor Charles Herty and which led to the development of a process of using seemingly hopeless southern pine in producing pulp and purified cellulose at a cost low enough to interest paper and rayon makers. Actually, kraft pulp, in which color is not of any consequence and which is used for the making of strong wrapping and lining papers, is the backbone of the southern paper industry. Even at the height of the depression the South was producing 2,500 tons of such pulp a day. Yet Herty's discovery that young resin-free slash pines can be used as raw material is all-important because of our imports of sulphite, which amount to 3,500 tons a day...Even if it turns out that the South will continue to make unbleached 'kraft,' for which unselected logs can be utilized, Mr. Killefer's statistics are impressive because they place our paper needs in a new light. Over and over again we have been told that axe wielders strip whole mountains of spruce to meet the demands of a paper-consuming people and that they destroy more forests in a week than nature can grow in half a century. Now it turns out that southern woodlands will yield 25,000,000 tons of pulp from new growth annually--three times the present annual pulp consumption of the country...If Mr. Killefer is right, the South's pulpwood future will mean a rich new industry that will require the investment of approximately 500 million dollars of capital..."

DAILY DIGEST

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PHILIPPINE TRADE REPORT Elimination by 1960 of all special trade preferences between the United States and the presumably independent Philippine Government of the future is proposed in a report prepared by the Joint Preparatory Committee on Philippine Affairs and made public last night. The committee's report, given out with the approval of President Roosevelt, as well as his written endorsement, proposes a broad program dealing with immediate amendments in the Philippines Independence Act which Mr. Roosevelt says should be enacted before November 1940, and an interlocking long-term commercial program to govern readjustment of American-Philippine relations in keeping with their later status as independent governments. (New York Times.)

HIGHWAY MEETING Discussions of the latest developments in highway safety, engineering and modernization were begun yesterday by members of the Highway Research Board of the National Research Council at its 18th annual meeting. Speakers from all over the country will pool data on highway advancements at the five-day meeting in Washington. Among the 500 expected to attend are scientists, interested in better road materials, builders interested in better construction conditions, traffic men working on improved safety, as well as road designers and roadside developers. The group is composed of city, state and national road administration officials, highway material manufacturers, university research men and various automobile association representatives. (Washington Star.)

CALIFORNIA FOREST FIRES Southern California's calamitous series of brush and forest fires, conquered after a loss of \$5,000,000 in property and denuded watersheds, sharply heightened yesterday the danger of floods this winter. Approximately 37,000 acres were burned over in five counties since Wednesday. Chief damage was in the Santa Monica and San Bernadino ranges. More than 10,000 acres were swept by flames on the mountains behind the city of San Bernadino, creating a grave problem in flood control. (Associated Press.)

FOREIGN TRADE This country has always regarded foreign trade as a means of exchanging goods on a mutually profitable basis and it has never believed that trade should be a medium of political propaganda, designed to influence the customers' system of government, Richard C. Patterson, Jr., assistant secretary of state, said yesterday at a conference on Latin-American trade of the Kansas City Chamber of Commerce. (New York Times.)

Roadside
Improvement

"Reports from all sections of the United States, presented at the recent national conference in New York on roadside improvement, show clearly that unusual progress has been made since 1936 in curbing road signs which disfigure landscapes and make highways less safe," says Joseph Taylor in the New York Times (November 27). "Though New York State still has no billboard law except in connection with parkways, high hopes are held that one will be pushed through this winter's legislature as a result of the efforts of the newly organized New York Roadside Improvement and Safety Committee...States now requiring permit fees for each outdoor sign include California, Connecticut, Maryland, Maine, Massachusetts, Nebraska, New Jersey, New Mexico and Vermont. Much credit for the passage of regulatory laws belongs to the National Roadside Council, a clearing house for all civic groups interested in preserving roadside beauty...Some states have discovered that small posters tacked on trees, fences and barns can be eliminated by levying a small permit fee for each sign. Introduction of a 25-cent fee per poster in California brought down thousands of annoying advertisements.. Small signs in Maine now cost \$1 each and are comparatively rare. Even fewer are seen in Connecticut, where the minimum fee is \$3. In Massachusetts, which has hardly any small signs, the fee is \$4 and the poster must be set back at least fifty feet from the right-of-way. The reduction of the number of large billboards has been a more difficult matter, although Massachusetts has produced some results by laws stipulating that the billboards must be placed at least 100 feet back from the highway. The effect of a high billboard-permit fee recently adopted in Virginia is already noticeable..."

Economic

Nationalism

"Australia's export income is vital to the prosperity of her secondary industries," says an editorial in the Pastoral Review (Melbourne, October 15). "She cannot export without importing, and to talk therefore of curtailment of imports to the point of absolute national self-sufficiency in the matter of manufactured goods is the height of absurdity. It is a policy of economic suicide. Practically the only goods we can export are primary products, as secondary industries cannot produce, and are not likely to be able to for many years to come, at a cost that makes it possible for them to export more than a negligible quantity. As a matter of fact, during the ten-year period 1926-27 to 1935-36 the value of manufactured exports, including the value of the raw materials therein, amounted to only 3.77 percent of the total value of all exports. Agricultural exports accounted for 24.40 percent of the total, and pastoral for 52.43 percent. The primary industries must therefore continue to carry the greater share of the burden of maintaining Australian solvency and supporting secondary industries. They can only do so if their export markets are restored and expanded. There is no surer way of closing those markets altogether and ruining the primary industries and Australia herself than persistent striving for the goal of economic nationalism, a policy that, more than any other factor, has been responsible for the progressive deterioration of international relationships and world welfare during recent years."

"Contract" Agriculture Sir E. J. Russell, Director of the Rothamsted Experimental Station, is author of the third of a series of articles, "Planning Agriculture by a System of Contracts," in Country Life (London, November 19). A note says: "Agriculture can be planned for prosperity of farmers; maximum rural population, food production for defence, or a better nutrition. Sir John Russell advocates not one of these but a system of contracts enabling agriculture to make its maximum contribution to the country's wealth." The author says in part: "The essential preliminary to a (contract) plan would be an inquiry to discover which foodstuffs could be best developed here and to what extent this could be done with the minimum loss of total national trade. A program would then be drawn up showing the quantities of the various foods we should aim at producing. This would be discussed with the farmers' organizations, and quantities would be allocated to each region... The organizing work would be done by the farmers. A contract system would need to be used; farmers--now organized in the National Farmers' Union--would be asked to produce so many hundred thousand tons of the various commodities, and a fair contract price would be paid, allowing a fair wage to the worker and a reasonable return to the farmer. The terms and figures would, of course, be published, and this in itself would put an end to many suspicions of speculation. The great advantage of a contract system is that the farmer would know how much money he was going to receive, and therefore would know how much he could afford to spend in cultivation, manuring, etc. At present, with few exceptions, he knows only his outgoings, most of which are fixed for him without regard to the price of the produce. He does not know what his receipts will be, and he will not know this till months after his outgoing money has been spent. In consequence, he must play for safety and assume low cash returns; he tends to farm on a lower scale than he would adopt if his receipts were more certain. I regard this as the most important advance that could be made in agricultural organization..."

Va. Cheese Process An increasing number of Virginia farm women are using a new method of cheese making, discovered at Virginia Tech, to produce cheese at home which they can sell to supplement the family income, W. D. Saunders, V.P.I. specialist in dairying, says. The method, evolved by Professor Saunders, is employed in a co-operative cheese factory. The V.P.I. process, he explained, permits the use of milk of high acidity, requires half the time necessary in other methods and makes a cheese that ripens in half the time needed for other types. Professor Saunders said he had been very successful in selling his type cheese, which ripens in three months, and is regarded by those who have used it as equal or superior in quality to cheese of other types ripened for six months. His process features the use of 5 percent "starter" stirred into the milk. Chief virtue of the Saunders process is that farm families without modern refrigeration can use milk of high acidity to manufacture in the home a marketable product. (Richmond Times Dispatch, November 21.)

Ohio Extension Leave B. B. Spohn, Ohio Extension Service, reports in Extension Service Review (November) that a plan for leave for professional improvement of Ohio Extension workers has been approved by the board of trustees of Ohio University.

"The recommendations for leave for study," he says, "are based upon these factors: (1) The tenure of the individual and the quality of service rendered; (2) the ability of the person to do advanced study; (3) the availability of funds to employ assistants, when necessary, to carry on the work of members on leave; (4) the approval of cooperating committees in counties when county extension agents are involved; (5) the approval of the Federal Director of the Extension Service; (6) the general status, at the time, of the department or county program; (7) the leave with salary will be for not more than one quarter or semester. The tenure is the primary basis for classification for leave...The extension staff considers this provision for advance study to be an opportunity and responsibility of great value to each person and to the extension program in the State."

Cooperative Purchasing "...Cooperative purchasing organizations in the North-east, in the last twenty years, have become really large business," says J. A. McConnell, general manager of the Cooperative Grange League Federation Exchange, in News for Farmer Cooperatives (November). "They have modern plants, trained personnel; they are in most cases fairly adequately financed; they have bank connections; they have wholesale connections for raw materials; they have developed fine specifications on materials which farmers need to purchase; and probably most important of all, they have blanketed the territories in which they operate with distribution systems so effectively that any farmer in the territory has only to drive into town or call on the phone to obtain services on those supplies he wishes to purchase through his cooperative purchasing organization. It's an interesting sideline also that some of these cooperatives have set up member cooperatives jointly owned by them, with actual plant facilities to produce certain supplies jointly for the member cooperatives. These are usually materials of which no cooperative by itself has sufficient volume to operate plants economically. Examples of this are a fairly large feed plant in Baltimore owned jointly by G.L.F. and the Ohio Farm Bureau; and a wholesale gas and oil cooperative for the blending of oil and the buying of gas owned jointly by several of the large cooperatives. Ownership of these producing cooperatives is based on the volume put through by the members and is in many cases adjusted by redistribution of stock periodically. This move bids fair to work some great economies on financing and plant costs in the production of many supplies..."

4-H Club Scholarship Katherine Sire, 18-year-old freshman at Montana State College, is winner of the President Roosevelt award of a \$300 scholarship and a case of silver which was announced at the annual 4-H Club Congress in Chicago. Within the last six years she has completed 16 4-H work projects, principally in clothing, and has canned 6,632 pints of food. (Press.)